Parks versus Villages.

EDITOR. "And so, my worthy friend, you have turned rural improver, and are planning not only for your own homestead, but actually laying out a village?"

Improver. "Ay, am I! The railroad from the city passes through these farms, which I have purchased cheap, and I am enacting the character of *a founder.*"

Editor. "Very good; every citizen who becomes a purchaser will have cause to thank you in the improved health of his family, and their increased enjoyments. What is the size of your lots?"

Improver. "Single lots, twenty feet by one hundred; double lots, just twice that size. In the alleys you see here on the plan, the plots are fifteen by sixty. It cuts up beautifully!"

Editor. "And, pray, why do you follow so exactly the plan of all rectangular cities?"

Improver. "Because it cuts up the land to so much greater profit. I mean to clear a hundred thousand!"

Editor. "That prospective profit is not so clear to me. I can see no advantage you offer; no inducement to leave one closely-packed city to come and found another."

Improver. "Why, my dear sir! look at the prices here and at those in town! I sell now for a dollar a foot on ground rent, while, in the city suburbs, prices vary from six to ten dollars."

Editor. "That may be very true; but, to beginners, you offer neither good schools, paved walks, water, nor gas; and as for space for a garden, except one purchases a dozen of your 'single lots,' and that would be expensive, I shall be greatly surprised if you have any customers."

Improver. "Really, you are not very flattering! I go upon the notion that there is a fool born every day, and if I can get but one year's crop into my net, the hundred thousand is secure. They won't find out that it is to be a crowded town till it is pretty well built, and then *I* needn't care."

Editor. "I came to see your lots, induced by your flaming advertisement; you did not know I thought of becoming a purchaser! A glance at your map was discouragement enough; your unblushing avowal of your selfish purposes is apparent on the face of your plan; so, taking no advantage of your declarations, let me point out to you where you are wrong. In the first place, this broad continent is large enough to give every householder at least room and verge enough for a kitchen garden, and a place, besides, for his children to play in, without always resorting to the streets. I can see no reason why you should pocket an hundred thousand dollars from the earnings of others, when they can as readily make their own purchases on the line of the same railroad."

Improver. "I beg your pardon; this is the nearest land to the city that can be bought in this way. Besides, you see I have left lots for a church and a public square."

Editor. "A public square! Why, truly, it is a square; but it is not large enough to pasture a single cow, much less to serve as a healthful promenade for a closely packed public. You should have left acres instead of feet, laid it out tastefully, and planted it with a great variety of the best and most beautiful trees."

Improver. "Ah yes! you don't catch me paying out cash for such things as those! I have enough to do to persuade people of the advantages I offer. I have an office in town for this purpose, and advertise in all the papers."

Editor. "Advantages! You mean to say, you design to take advantage of your purchasers! Now, this is all wrong. Shall I tell you what you ought to do? It is not too late, and if you will follow my advice, you may dispense with your office in town, and the people will come to you."

Improver. "Ah! I wish you could bring that about."

Editor. "Nothing easier. There is an appreciation of beauty underlying all the rough natures and busy merchants, which, if once awakened, is sure to respond to a good leadership. The ladies, too! Why surely you can have few advocates for your plans among those best portions of the creation. And, without the ladies' approbation, depend upon it, you can accomplish nothing. What you want is, first, to burn your map; get a surveyor and a landscape gardener (a real one, I mean) to lay out your farms according to some well-established principles. Don't think of levelling that knoll! It would be preposterous."

Improver. "Excuse me! how should we fill up that ravine?"

Editor. "There is no occasion to fill up that ravine; to do so you would be obliged to throw an arch over the whole of that beautiful stream of water, and bury one of your best resources for beautiful results. You must build a strong, sound dam, and create a lake."

Improver. "A lake! O dear! who would ever buy water lots?"

Editor. "Keep them, then, yourself, and agree, when you have disposed of one hundred lots, to present the lake to the residents. Place suitable trees around it; border with shrubbery and an intricate walk; place, if you find it will answer, a small island in your lake; plant a rustic bridge to it, and fill it with the choicest shrubs and flowers. Let every purchaser have a key to the whole, and my word for it, you will get more for your whole plot, if your other improvements correspond, than for your abominable city lots, with the old arrangement of alleys in the rear."

Improver. "And pray, what would be the other corresponding improvements? I begin to comprehend you."

Editor. "Nothing more palpable. Plant out your boundaries judiciously, say with Norway firs, to be kept down, after a few years, by cutting off the leaders; make a properly curved drive through the place, which shall approach in its gentle sweeps every acre or half-acre of the *park!* Yes, a park, for the residence of

reasonable human beings, who have enough of city when they are obliged to go to it for shopping. Let every plot be in itself a rural home, so contrived that its owner can pluck his own fruit, keep his own pony phæton, if he pleases, and look out of his windows without seeing brick houses."

Improver. "I never thought of this. I will make a little calculation, and see *if it will pay.*"

Editor. "It will surely pay, and you will be remembered as one of the choice spirits of your age, instead of being—*nobody!*"

THE CHANCELLOR PEAR.*

Synonyms.—Green's Germantown—Early St. Germain.

This truly delicious pear, probably an accidental seedling of the St. Germain, originated at the country residence of Wharton Chancellor, Esq., on Schoolhouse Lane, Germantown, now within the limits of the city of Philadelphia; the original tree still stands on his premises, within an inclosure of evergreens, and is probably more than fifty years old. Specimens of the fruit from a grafted tree in the garden of Mr. Joseph Green, of Germantown, were, for the first time, exhibited at the annual Fair of the Pennsylvania Horticultural Society in September, 1848; and to this variety was awarded the premium offered by the society for the best seedling pear exhibited in 1849. *Size* large,-3¼ to 4 inches long by 2¾ to 3 inches broad; *form* long, obovate, inclining to pyriform; *skin* dull green, with numerous green and russet dots, some russet markings, and occasionally a faint, speckled, warm brown cheek; *stem* ¾ to 1 inch long by $\frac{3}{16}$ thick, inserted in a small, irregular cavity, usually elevated on one side; *calyx* small, open, set in a plaited shallow basin; *core* medium; *seed* ¾ of an inch long, ½ broad, ¼ thick, light brown, acuminate, full at the obtuse end, on one side of which is a small angular projection; *flesh* of fine texture, buttery; *flavor* rich and exceedingly agreeable, but by some it may be considered too saccharine, which, in our opinion, should never be viewed as an objectionable feature, since the saccharine quality is the first to show its deficiency in defective soils, unpropitious seasons, or under poor cultivation; *quality* "very good," if not "best;" *maturity*, last of September and beginning of October. It keeps well and ripens handsomely, without decaying at the core. Leaf lanceolate; young wood, slender, yellowish brown; growth spreading.

It does well on the quince, but better on the pear stock, as is mostly the case with all recently obtained varieties from seed.

To Doctor W. D. Brincklé, who has devoted so much time, skill, and patience in discovering and bringing into notice some of our finest fruit from Pennsylvania, Delaware, New York, and the South, we are indebted for the knowledge of this valuable variety.

The specimen delineated is rather middle sized; we have seen many larger, grown on the original tree.

* See Frontispiece.

PEAR CULTURE.—No. 2.

BY DR. J. M. WARD, NEWARK, N. J.

Our favorite mulch for the pear—both standard and on quince—is the coarsest unfermented manure the stable and yard can furnish, and applied, invariably, in the fall of the year, that the tender rootlets may be preserved from the injurious influences of the extreme and sudden vicissitudes of temperature through the winter, at the same time that the soluble parts of the manure, dissolved by the winter rains, may be carried to the rootlets that have penetrated deepest in the soil.

The same manure, applied in the spring, enriches simply the surface rootlets, while the greater portion is dissipated under the evaporation, which is so actively carried on during the spring and summer months.

When liberally used, the undecomposed portion remaining in the spring acts the part of a simple mulch, protecting the surface soil around the tree from the action of the summer's sun. So much importance do I attach to this, that these circles are made the receptacles for all the waste vegetable matter that can be collected on the farm. It may possibly be owing to the protection thus given that I have never seen a pear-blight in the orchard.

A part of my trees received last spring, for the first time, a dressing of leather parings from the leather manufactory, with the operation of which I have been much pleased. The supposed influence of the mulch in securing an increased size of the fruit was first suggested by an experiment with some peach-trees that occupied a neglected portion of the orchard, which was suffered to be overgrown with weeds. When pulled, they were deposited around the trees, in their green state, in such masses as to secure rapid decomposition, and thus preserved in a state of moisture the surface of the soil, while all around, the earth was parched with drought. The fruit (Crawford's late) attained to one-third greater size than ever before grown, and they reached their maturity so much later than ordinary, as to give me a supply much longer than usual, and a quantity for the market when there was no other in competition with it.

The physiological explanation of the fact is found in the preservation of the requisite moisture for the tree to elaborate the sap necessary for the continued vigor of the foliage, and perfect development of the fruit. Having said thus much of the treatment, let us turn to the character of the fruit; and should my description of their qualities seem to some too highly colored, and to others to be contradicted by their experience, I beg such to remember that very much must be credited to the character of the soil, it being a gravelly loam, overlaying an absorbing subsoil in which the pear delights, inasmuch as it rarely suffers from drought, or from excessive moisture.

The uniformly high flavor of all the smaller fruits, particularly the strawberry, which seems indigenous to this soil, has convinced me that some of the qualities of the pear, particularly the *flavor* and *aroma*, depend more upon the physical constitution of the soil than we have been wont to think.

If this is not so, the fact to me is inexplicable, that not a solitary pear accredited good has failed, on my grounds, to sustain that character.

Dearborn's seedling, predicted by some as but a forerunner of better ones, has proved of excellent flavor as well as a pear of great beauty; its waxen surface of clear yellow, beautifully broken by the minute specks dotted over it, endear it to the amateur, and commend it to the casual observer. When ripened in the house, it has been so uniformly good, fine-grained, juicy, melting, and of delicious flavor, that I cannot understand how the Dearborn can sustain any other character. It bears uniformly large crops, and ripens through a long period—in New Jersey, the finest of all the early pears.

Oswego Buerré has fully sustained its reputation as a brisk, rich, and excellent flavored pear, not unlike the Doyenné in its buttery, melting character—so peculiar has been its flavor as to remind one of the aroma of the *Rose Geranium*. It comes early into bearing, but, I fear, its size, in New Jersey, will be rather below medium.

Louise Bonne de Jersey, always a good *mid-autumn* pear; to most, gratefully subacid, very juicy and rich.

Bartlett—a Bartlett still. This season, this universal favorite was so abundant as to depreciate materially its market value, and faintly shadow forth that "good time coming," predicted by our friend, "B., of New Jersey," when good pears shall be so abundant as to bring them within the reach and enjoyment of every man.

Hacon's Incomparable.—Its melting, buttery, subacid character, and delicious flavor, are such as lead me to say—if it belongs where it has been placed, in the class *good pears*—it deserves to be at the top of the list. The fruit is large, and uniformly smooth and fair.

Vicar of Winkfield, though coarse-fleshed, of good size; when fully ripened, of good flavor, and of a fine, yellow color. A part of my crop has been somewhat astringent, the result, doubtless, of premature gathering. It is evidently not adapted to a northern climate, as a too short season of growth will give full one-half of the crop immature at the period of gathering. Or, this character of the fruit may be owing to a too great luxuriance of growth for the first few years after it comes into bearing. No variety has given such a vigorous growth of shoots, causing the tree to exhibit almost a fantastic appearance. The fact that the *wood* and *force* principles are antagonistic forces—the predominance of one repressing the other, may satisfactorily explain this phenomenon. Observation alone, with the increasing age of our orchards, must, however, settle this question.

Duchesse de Angouleme.—Large, uniform in size, of high flavor, and juicy; as regards its market value, deserves to be ranked No. 1.

Swan's Orange—Onondaga.—Its fair, smooth skin, of pale yellow, and when fully ripe, rich, golden color, makes befitting the expression *magnificent* in color as well as in size, of rich, juicy, and aromatic flavor, with flesh fine-grained and buttery. When better known in our cities, will rival the Duchesse. It has less

tendency to rot, and is a most vigorous grower on its own stock, and, uniformly, an abundant bearer. Maturing between the Bartlett and Buerré Diel, it seems to unite the characters of both. Ripening at such a time, when nothing is comparable to it in size, commends it particularly to the market grower as an orchard pear.

Columbia.—The white, melting, buttery flesh, not wanting in richness, and of delicious flavor, combined with the thin, smooth skin of a *lemon yellow;* with great luxuriance of growth in the tree, bearing uniformly abundant crops, and hanging well, in spite of high winds, to the period of maturity, has led me to purpose working many of my trees, the coming spring, with this variety. No pear, all things considered, has given me greater satisfaction; its great beauty and sterling worth highly commend it to the orchardist as a market pear.

White Doyenné—St. Michael's.—Now five years in bearing; the first year gave fair fruit, entirely free from cracks or specks upon its surface. Since then, no tree out of about a dozen has borne a crop of fair fruit. While, on one side of the tree, the fruit would be badly marred, on the opposite, a part only would exhibit the disease; and some specimens would be quite fair. On other trees, no fair fruit would be observed; and yet, all the trees have made, from year to year, a growth of wood equal to the Louise Bonne of Jersey, and retained their foliage of healthy color quite as long as any variety in the orchard. The fruit on the sides of the trees facing the northeast, were uniformly marred—so as to suggest the atmosphere[1] as the cause or the medium of its transmission. Is there, from any quarter, light as to the nature of the disease, giving promise that we shall ever enjoy, in perfection, this noble fruit in our stricken region.

The *Belle Lucrative*, often reported as indifferent, and of poor quality, with me has uniformly proved exceedingly rich, melting, and of high flavor, with a juicy flesh of fine texture. None has been more honeyed—fully equalling, in this respect, the Seckel. It has exhibited a tendency to overbear. When properly thinned, the fruit is uniform in size, and large. The Seckel, Winter Nelis, Easter Beurré, Glout Morceau, and Beurré Diel, merit the praise awarded them.

(TO BE CONTINUED.)

ORNAMENTAL TREES—THE COTTON-WOOD.

BY LEWIS F. ALLEN, BLACK ROCK, N. Y.

My northern readers may not recognize this well-known tree under this popular name, which it commonly bears in the Southwestern States. It is the *Populus Canadensis* of the books.

There are two or three varieties of this family of Poplar. They are frequently called "Balm of Gilead" by country people; yet they are the true cotton-wood,

[1] The prevailing storms, during the autumnal months, are from the *northeast.*

called so, probably, from their shedding a short, cottony fibre from the pod inclosing their seeds, which, in this latitude, 45° north, is about the 20th of June.

When in good grounds, it is a noble, stalwart tree, attaining the largest size, with a high, spreading top, the limbs striking out at some distance apart, the leaf heart-shaped, and about three inches broad, and, like other poplars, with a tremulous, vibrating motion in the slightest breeze. It luxuriates in a free, open, moist soil, and, in river bottoms, is unsurpassed in size and grandeur. It grows thriftily in all good uplands, preferring a clayey loam, but not averse to even thin and hungry soils. On the deep and rich alluvions of the western rivers, I have seen young trees, of a single summer's growth, fifteen feet high. The upper wood of the limbs is sometimes brittle, and more liable to break in tempests than the elm; yet they withstand the winds quite as well as most others. They are tenacious of life, and bear mutilation of the roots, in transplanting, with little injury to their growth. The color of the stems and branches is a light drab, producing a beautiful contrast with the elm and maple; and, although not affording so dense a shade as they, yet sufficient for all common purposes. To produce a *rapid* covering, no tree is its equal. For avenue, lawn, or front planting, they should not be abundant; yet, thrown in occasionally with others, in spreading grounds, their effort is noble and imposing. Like the Lombardy poplar, standing alone, they are a conspicuous land-mark, partaking of the grand, while the other is picturesque. In February and March, they throw out numerous clusters of brown flower buds, and leaf out with the earliest, while they retain their foliage among the latest of our forest trees. Near a stable, a barn, or an out-building, they produce a fine effect, withstanding the rubbing and tramping of animals, and throwing their shadows far and wide, while their strong and hardy habits are in keeping with the homely uses of the buildings they thus adorn. They should not be planted in too close contiguity with the dwelling, as their strong roots will penetrate under the walls, if not laid deep, and with strong mortar; yet, at a distance of fifty or a hundred feet, they give no inconvenience. Song-birds love to perch on their lofty limbs, and sing by the hour among their fragrant tops, for they are delightfully fragrant when in flower, and, at this time, are enlivened with the constant hum of bees. I have a noble one near my stable, sixty feet high, and about thirty years old, in which a pair of orioles have nested for several seasons, swinging their cosy habitation from one of the high outer limbs, and taking a world of delight in trilling out their songs on a sunny morning.

Of a rapid growth, no tree will form so ready a shade as this, and, to cover a naked spot, they are the most available. They are wonderfully suited to prairie planting in the west, both for protection and fuel: and, as adding to variety in any grounds, the use of the cotton-wood should not be neglected. Flourishing, too, as they will, in all the climates of the United States, they can be safely adopted everywhere on our farms and pleasure-grounds, with a trifling cost. Nurserymen should plant them, and they should be cheaply distributed; and, although they will both grace and ennoble the grounds of the rich, they can as well ornament

the dwelling of the lowly. For school-grounds they are particularly appropriate. *They can stand the boys*, and throw a grateful shade over their wild gambols while bearing strongly up under their reckless embraces.

[Though Foucault, who studied this tree, calls it more picturesque than the Carolinian, we should not venture to recommend it in any plantation of an artistic or very select kind. For rapid growth and early flowering, it is only rivalled by the Populus grandidentata, a very interesting tree, both for the character of its head, and for its peculiar colored bark. The cotton from the flowers may be objectionable near a dwelling. The fine avenues in the lower parts of the garden at Versailles, are of this species.—ED.]

DOWNING'S FAMILIAR LETTERS.—(CONCLUDED.)

No. III.

A LITTLE playful suggestion that he had grown in favor with newer friends, brought the following reply :—

NEWBURGH, March 17, 1850.

MY DEAR FRIEND: If it were not for this horrible storm, I think I should endeavor to see you this evening at the Astor House.

If I have, as you say, been unusually silent lately, it is because I have been "immersed in affairs," and *not* because I have been busy with new friends; for I have never sat so unceasingly at my writing-table as for the past three months, and I hope I shall soon have something to show for it.

You are, I hear, going again to England. If you stay long enough to run about a little, cannot you give me a letter or two of *Parkomania* for my *Horticulturist*? This is, I believe, all I have to ask, though I may perchance address you a letter to the care of your London Banker's, after you have sailed.

Yours, with esteem,

A. J. DOWNING.

NEWBURGH, March 22, 1851.

MY DEAR SIR: I was so unlucky as not to get your letter till after it was too late to profit by it. I reached Philadelphia somewhere between midnight and daylight that Saturday evening, and after taking a decent allowance of rest, I promised myself the pleasure of spending part of the day (Sunday) with you. But, to my great disappointment, no railroad cars ran to Germantown on Sunday, at least, not till five o'clock, and, on inquiring about a carriage, I found they asked the moderate price of $7 to take me and bring me back—more than I could afford. So I reluctantly wasted my time till the afternoon train. But I don't despair of sitting under your roof yet. If I had got your letter in time to have written you, and found your chaise in waiting, all would have gone quite right.

If you have any time to bestow on a friend, won't you send me eight or ten plants, if you can spare them, of the Giant Ivy you were so good as to promise

me? and, also, command me touching some choice fruit trees, if you think I can be of any service in that matter. Yours, with esteem,

A. J. DOWNING.

To J. Jay Smith, Esq.

Newburgh, April 10, 1851.

My Dear Friend: The Ivy plants have arrived in the best order, much to my gratification. I went up to the nursery, and selected the fruit trees myself; they will reach you this week. If you will have large holes prepared for them in your garden, with plenty of leached ashes, and lime-rubbish, and manure in the soil, I will warrant you to have the finest fruit. Your Philadelphia soil is worn out in the mineral food, that is all.

One bushel lime rubbish from old walls, &c., and a barrowful of leached ashes to each tree; hole, three feet wide, twenty inches deep.

I am just on the wing for Washington. Pray drop me a line on receipt of this, saying if you will be at home about the middle of next week, and believe me,

Yours sincerely,

A. J. DOWNING.

To J. Jay Smith, Esq.

Washington, April 16, 1851.

My Dear Friend: I believe I must give up reaching your house, at present, in despair, as the fates are against me. The weather has delayed my operations here so much, that I cannot leave till Thursday; and I have letters from home which will force me to go on directly. There are a number of matters that I want to consult you about, and I regret sincerely that I must lose another hoped-for opportunity. Yours, sincerely,

A. J. DOWNING.

To J. Jay Smith, Esq.

Washington, Oct. 30, 1851.

My Dear Sir: I thank you most heartily for your letter and the communication. * * I did not know, till a few weeks ago, that you were in the country—supposing you again amusing yourself in Europe.

I hope to be able to spend a night at your house on my way home, and will let you know a day beforehand. I wish very much to see and have a long chat with you.

I am deeply immersed in practical works—architectural and rural—turning my theories into practice all over the country. Sincerely yours,

A. J. DOWNING.

J. Jay Smith, Esq.

Col. Eastwick, the present proprietor of Bartram's Garden, had requested us to engage Mr. Downing's services in laying out the additional ground near his superb mansion, but Mr. D.'s engagements were too numerous to comply. He then charged twenty dollars a day and his expenses, for engagements of this kind, and was constantly obliged to decline new ones.

In the midst of this great and unrivalled success, he was cut off, and the country deprived of services such as were greatly needed in our growing prosperity.

The following was the last note we find from this admirable man, graceful writer, and warm friend. In the summer of 1852, he was numbered with the dead, taken, as we are fain to think, prematurely from the midst of his usefulness:—

NEWBURGH, March 29, 1852.

MY DEAR FRIEND: I am, during this whole month, so deeply engaged, that I fear I shall have to decline Colonel Eastwick's commission, however reluctantly. I really begin now to despair of seeing you at Germantown. I have made three decided efforts to do so; the first last fall—when I was taken ill, in Philadelphia, with the pleurisy, and kept two days at the U. S. Hotel, glad to crawl home as soon as possible. The second time, this spring—but was laid hold of by a gentleman in Baltimore, on my way there, who would have the time on his place that I meant to devote to you. I am really a man of no leisure—except *after dinner*, at home. I wish I could show you my "Bureau of Architecture," in my new wing of my residence—full of commissions, and young architects, and planning for all parts of the country.

I am *en route* to Washington, to-morrow—planting some fine trees from England at this season.

Your friend,

A. J. DOWNING.

To J. JAY SMITH, Esq.

THE TWELVE BEST EVERGREEN TREES.

BY THOMAS MEEHAN.

THE question has been asked me, "what twelve evergreen trees would you recommend as best adapted to general purposes?" It is rather a difficult question to answer satisfactorily, as, under some circumstances, one particular kind would be preferable to another. Where there is plenty of room, a strong grower would be better than one of humbler aspirations, and one might look wonderfully well on a hill-top, that would look very indifferent, or out of place on a level piece of ground.

But, taking all things together, for "general purposes" I would place as

No. 1, the *Norway Spruce*.—It is a peculiarly useful tree, its character adapting it to highly artistic scenery, and, at the same time, to wild and rugged situations, in either of which it has a very grand effect. In places where it is not an object that the general effect should be of the first order in an artistic point of view, the Norway Spruce is very valuable. Nothing can excel it as a fast growing evergreen for a screen to shut off disagreeable views, or afford shelter from cold winds. It will also bear the shears tolerably well, and make a very fair ornamental hedge, though, in that respect, not equal to

No. 2, *Hemlock Spruce*.—This, I believe, all landscape gardeners concede to be the handsomest of evergreen trees. The Hemlock looks well anywhere. It does not do well, however, in stiff, heavy soils. As a single object on a lawn, there is nothing to go ahead of it, unless, perhaps,

No. 3, the *Deodar*.—It is still a question with many arboriculturists, whether this ought to be considered a *perfectly* hardy tree. So far as my own experience goes, I should decidedly say that it is. The season of 1854–5 is an extreme case. That in some few and unfavorable locations it was killed, proves nothing against its general hardiness. My own specimens, entirely unprotected, and in soil which many would call wet, were quite uninjured, while, not a hundred yards from them, some Balm of Gileads, probably twenty years old, lost many of their smaller side branches; yet, who would pronounce the Balm of Gilead a tender tree? The Deodar is a very rapid grower, more so than the Hemlock, though not equalling the Norway. Its gray color gives an interest to it, which ornamental planters seek to take great advantage of, and thus, though thousands are annually imported, it still continues scarce.

No. 4, *Balm of Gilead*.—There will, I am sure, be many who will be inclined to dispute the propriety of placing this fourth on my list. It is, however, a first-rate tree for small gardens, where soil is deep and rich. In poor soils, it becomes a poor, pitiful object, and it is when seen in such situations that it receives such a general condemnation. It seldom grows more than forty or fifty feet high in this latitude, and is a very useful tree to plant by straight walks in confined situations, with which it harmonizes extremely well.

No. 5, *Silver Fir*.—Though this is one of the most beautiful of our stiff-growing, formal-looking evergreens, I am not quite satisfied in placing it before the next, for "general purposes." It is a tree to be looked *at* only. It will not associate well with other trees, nor do they make a good group of themselves together. As single specimens on lawns of some extent, and contiguous to large mansion-houses, or elegant buildings of any kind, it cannot be surpassed.

No. 6, *White Pine*, is a very valuable tree, though, like the Balm of Gilead, it is liable to get a bad character when grown on poor or improper soils. It is a kind that *loves* manure. In a moist, rich loam, it grows very rapidly, and forms a beautiful object as it grows. When growing in partial shade, it soon becomes unsightly. It glories only in the light; where this can be commanded, and plenty of space afforded, plant the White Pine—under other circumstances, it is not so desirable.

No. 7, *Austrian Pine*.—A very rapid grower, and one that looks well in even poor soils. It has too coarse an appearance when in confined situations or small places, but where there is anything like room, it is in good keeping. It is being very extensively planted in country-seats.

No. 8, *Scotch Pine*.—Very valuable in poor, rocky, or sandy soils, where few other evergreens will look well; though it also will show its gratitude for a few barrowfuls of good leaf soil, thrown into the hole prepared for it.

No. 9, *Bhotan Pine*.—Though not many years since introduced from the Himalayas, is becoming a general favorite. It resembles the white pine, but has longer leaves, and of a silvery whiteness, and is adapted to pretty much the same localities and conditions.

No. 10, *American Arbor Vitæ*.—As a small tree for small gardens, this is very desirable; it will do better in poorer soil than the succeeding. It also makes very handsome, ornamental hedges.

No. 11, *Chinese Arbor Vitæ*.—Does well only when growing in a deep, rich loam. Then it makes a very handsome, small tree, having, for its only fault, a tendency to become brown in winter. In poor soils, it is a poor looking tree, indeed. When it gets to this condition, if the branches be pruned within a few inches of the trunk, and the soil around the roots dug up and manured, it makes a very handsome object, indeed. On the grounds of G. W. Carpenter, Germantown, Penna., where the soil seems congenial to it, it forms some of the handsomest small trees that are to be seen within many miles.

No. 12, *The American Holly*, which I am sorry to put last on my list for "general purposes;" I am, nevertheless, bound to say, is not inferior in beauty to any of the others. Indeed, I do not know of anything which, in its season, is more beautiful than an American Holly in prime health, and covered with its fine, scarlet berries. It thrives either in sun or shade, and especially in a moist, sandy loam. Though very hardy, it is much benefited by having its roots protected in winter. A few inches of long manure, or leaves, is all that is required. It makes a very beautiful evergreen hedge, and to raise seed for this purpose, they must be kept constantly moist from the time of sowing. If once allowed to get dry, the outer shell hardens, and they will often lie several years in the ground before growing, if the mice, which are very fond of them, leave them untouched for that period.

These twelve evergreens that I have recommended for general purposes, are amongst some of the commonest, I admit. Many of the rarer ones will doubtless compete favorably on more extended trials; but these have yet to be made; and it has therefore fallen to my lot to describe what *is now* rather than what *will be*.

[Mr. Meehan has experience, but we must differ from him in placing the Balm of Gilead so near the top of his list—if, indeed, it should be placed there at all. Under highly favorable circumstances, it has a period of great beauty; it is but brief, however, in this vicinity, and, after twenty years, it becomes a "shabby fellow," whose bad clothing a well-trained dog would bark at as belonging to a beggar. With this exception, the list is a good one; and we would substitute for the Balm, Cedar of Lebanon, or *Pinus excelsa*.—Ed.]

THE FUCHSIA.

BY T. APPLEBY.

It has frequently been a matter of surprise to me that the lovely, elegant, long-blooming Fuchsia, has not been more planted in masses in the bedding-out gardens. I am sure it has everything to recommend it. In the first place, it is easily kept through the winter; all that it requires is to be kept moderately

dry and free from frost. It may be kept alive in a dry room; in a dark cellar; under the stage of the greenhouse; in cold pits or frames, without any covering; or even will keep alive if buried under a heap of coal-ashes. It is easily propagated; every cutting will grow if taken off very young, planted in sand, and placed in gentle heat, under a hand-glass. Then, again, it may be planted out as early as May, and will flower till frost comes. It grows dense, and flowers most profusely, producing its coral-like blossoms most constantly. Surely, all these good qualities ought to induce flower-gardeners to patronize and cultivate this charming plant more than they do. The fact, however, is, that varieties are planted out that are utterly unfit for that purpose. Because a variety, grown in a pot in the greenhouse, produces there extraordinary flowers, it is thought fit for the flower-bed. It is then planted out and fails, flowering only for a short time. Now, to plant such large-flowering varieties not only leads to disappointment, but throws a slur upon the Fuchsia that it does not deserve. These ideas frequently passed through my mind when customers came in for bedding-plants, and almost invariably passed by the Fuchsias, because, they said, they did not flower enough. What a mistaken idea! Choose the right varieties for bedding, and no plant —no, none whatever—flowers more freely.

I have seen Fuchsias in the open air, with stems as thick as my wrist, and higher than any man I ever saw, as full of flowers as ever you saw an Oak-tree full of leaves; and I did not travel into their native country, the mountains of Chili, to meet with such splendid specimens. No; I only crossed the sea from Fleetwood, in Lancashire, to Belfast, in Ireland. There, in a garden at Hollywood, I saw *Fuchsia coccinea*, *F. conica*, *F. fulgens*, and *F. macrostemon*, of immense size, growing in the open air constantly. It is true that locality is near the sea, and, consequently, the frosts are neither severe nor lasting; but that says nothing; such plants could be kept alive in any cultivated part of Great Britain with such protection as I have mentioned above.

In the warmer parts of Britain, the Fuchsia will live out constantly, though, in severe winters, it will generally be cut down to the ground; therefore I would recommend them always to be taken up and stowed away, in preference to leaving them in the ground; and for these reasons—they are not sure to survive a very hard frost. If they do, they form such rank bushes that they are far from being handsome, and, beside that, they do not all grow alike. Whereas, if they are taken up and stowed away, the ground or beds may be well trenched; the soil renewed, if necessary, and the plants put out in such positions, according to their strength, that the tallest and strongest will be in the centre of the bed, and the weakest at the sides, so that they will form a kind of amphitheatre of flowers when in bloom, and every plant will be seen. So grown, no plants require less care. They grow thick enough to choke up all weeds. The foliage shades the ground, so that the sun has no power to dry up or parch the land, and they require no water, and are less subject to be preyed upon by insects than any plant I know. With these hints and praises, which, I trust, will induce many to try Fuchsias on

a larger scale than they have done, I now proceed to give my list of such kinds as I know will answer for bedding purposes.

FUCHSIA COCCINEA.—This is the first Fuchsia that was introduced into Great Britain. It has small leaves, and rather small flowers; is very hardy, and blooms profusely.

F. CONICA.—I fear this species is almost out of cultivation. I know none so fitting to form standards, because it has such a robust, tree-like habit. Planted in the centre of a bed of Verbenas, or other low-growing flowers, such standards break the tame, level line, and give a graceful variety, in form, to the general aspect of the flower-garden.

F. CORALLINA.—A well-known, strong-growing variety, suitable for a large bed, or to train up to a single stem, to form a weeping tree. The stems and leaves are peculiarly handsome.

F. GLOBOSA.—I do like this good old Fuchsia with its scarlet globes. It is peculiarly suitable for bedding; flowering freely, even when not more than four inches high; hence, it is a proper sort for smallish beds.

F. FULGENS.—This is one of the large-leaved species, with long, ear-ring-like drops of flowers, produced in heads at the ends of the shoots. Grown three or four feet high, with woody stems; kept alive for years in some back shed, or under the greenhouse stage, and planted out in spring. I know no plant more showy through July, August, and September.

F. GRACILIS.—A rather tall, slender-growing species, but a most abundant bloomer, with elegant, long-tubed flowers. Very attractive for a long season.

F. MICROPHYLLA.—The most dwarf of all Fuchsias, with beautiful stems, leaves, and flowers. It is a little gem for a small bed; but requires the greenhouse in winter.

F. RICARTONII.—This is, without doubt, the hardiest of all the genus, and, as it has small leaves, it shows off its blooms most perfectly. It is the most proper of all for bedding, though it will, if the soil is too rich, grow to a large size.

[Any experienced florist can apply these remarks from the Cottage Gardener.—ED.]

TRANSFORMED PEARS.

BURLINGTON, IOWA.

J. JAY SMITH, ESQ.—DEAR SIR: I send you, by mail, a specimen of a nodule or transformed pear, which grew in a garden in this place. Have you ever seen anything like it? Truly yours,

J. F. TALLANT, M. D.

Not exactly; but the tree has sometimes curious sports like others. Occasionally, the centre of a flower lengthens, and bears its parts upon its sides, both in the pear and apple, whose fruit is often found in the state of a short branch. Still more

rarely, a flower lengthens, and produces, from the axils of its parts, other flowers, arranged over its sides, as in the double pineapple.

The following cuts, which we take from a foreign publication, represent three pears, produced in different places and in different conditions. To use a gardener's phrase, there was, at first, no difference between the blossom-bud and the fruit-bud, but, after a time, the parts which were identical, begin to be organized differently; in the blossom-bud, they gradually change into sepals, petals, stamens, and carpels; in the wood-bud, they become young leaves. But, if anything occurs to disturb the development of the blossom-bud as a blossom, then it becomes a wood-bud, or approaches that state more or less, according to the period at which the disturbing force began to act. It thus appears, Dr. Lindley thinks, that whether a bud becomes a flower or a branch, depends entirely upon some unknown force, which acts at a particular moment upon parts originally of identical nature and quality, and capable of becoming leaves; if this action is complete, a flower is the result; if altogether withheld, then the rudimentary parts, not having their nature changed, proceed to acquire the condition of leaves. Hence it is, that when, from some accident, such as unusual heat and wet at a critical moment, exuberance caused by the excessive application of rank (azotized) manure, or any circumstances of a similar nature, the usual order of development is disturbed, flowers are not formed, or we have them converted into tufts and leaves, or even branches, perhaps into the pyriform nodule sent us. The following examples are conclusive evidence as to the truth of this theory:—

Fig. 1 represents a pear, in which the calyx and its fine sepals are not much disturbed, but in which the petals and part of the stamens, developed in the form

Fig. 1.

Fig. 2.

of leafy scales, adhere around the centre of the flower, which has lengthened somewhat like a branch, while the remainder of the stamens and the carpels are concealed within the summit, in the form of withered rudiments. The constitutional tendency to fleshiness, which is the characteristic of the pear, is not lost in this or either of the two other cases, but is preserved throughout, only diminishing towards the eye.

In Fig. 2, the phenomena takes a somewhat different direction, the leafy tendency being greater in some of the sepals, but the tendency to acquire succulence having been preserved in a far greater degree; as if the disturbing cause, whatever it may have been, which originally prevented the young parts from becoming petals, &c., and which forced the centre to lengthen like a branch, was effectually withdrawn and overcome by the tendency to become succulent, which the parts had already acquired when the disturbing cause began to act.

Fig. 3.

In Fig. 3, the change advances further, and in another direction. That dislocation of the rings of parts belonging to the flower, which was so visible in the two last cases, is here carried still further; and, in addition, two of the young parts near the middle of the whole structure, have each formed in their axil one bud, which has become a deformed flower, and produced a deformed pear. No organ of the plant, except leaves and their modifications, has the power of producing a flower from its axil.

IS THE KALMIA LATIFOLIA POISONOUS?

BY T. M.

SOME years ago, travellers gave us startling accounts of a tree, the very odor of which was death to animated creatures. Nothing would grow beneath its immediate shade, and all in its vicinity was seared and blighted. Well, when subsequently Richardson wrote of it, that he had often sat amongst its branches and smoked his cigar, we seemed to be acting very leniently in giving him and his story over to Munchausen or Gulliver; and it was not until the writer himself had the opportunity of, in some respects, imitating Richardson, that he became convinced that the celebrated Upas-tree of Java had been most scandalously libelled.

Has not our own most beautiful *Kalmia latifolia* been similarly injured? Thus I inquired, on reading the following note in *Darby's Botany of the Southern States:* "The leaves of the Kalmias are all poisonous; nevertheless, some animals, it is said, eat them with impunity, and that, too, to such an extent as to make their flesh poisonous to man, it becoming so impregnated with the poison of the leaves." Now, there seems to me something wonderful in this. My farm hand, one day, accounted to me for the death of one of his hogs, that he was sure it *must* have eaten a rat that *must* have tasted some phosphorescent poison I had set for it one day before; but, I am sure, his untutored brain would never have supposed that the poison had been in the flesh of the rat, instead of his stomach, and perhaps weeks or months before. This is the nearest case to that mentioned by Darby that I ever knew of, and yet, how far off?

But Darby only gives it as "it is said," and I am inclined to believe that all any of us know about its poisonous property is on the *ipse dixit* of some one else—as far back, perhaps, as some original Indian, hundreds of years ago. As far back as I can recollect, I was cautioned not to go near or smell the flowers, and told that the honey the bees extracted from them was poisonous. Had those who so taught me, lived in this region, handled the magnificent bouquets, or, as our children do, worn the rural wreaths they fantastically make of them, their fears would undoubtedly be very alarming. To this day, the English, with all their fondness for it, admit it only in guarded places, not exposed to the incursions of children, and where, like a caged lion, its grandeur may be seen, but its power not be felt. As we know this to be all "nonsense," why may not all the rest be that is said derogatory to it?

As to its being poisonous to cattle, I may mention that, in one of my botanical excursions last year, I came on a wood, in Delaware State, in which were some score of cows. Poor beasts!—there was little in that wood to satisfy the demands of a hungry appetite, but the wood abounded with *laurel*, as Pennsylvanians call it, and not a leaf was to be seen on the plants; they had eaten every vestige of

green about them, even to the young shoots. If I recollect rightly, this was on Ridley Creek, and, I presume, the butter, if not the milk itself, finds its way from that region to the Philadelphia market, and, if the statement, as "it is said," by Darby, be correct, with what a serious result to our citizens! for, assuredly, if the flesh can be impregnated so easily, how much more so butter and milk!

But I again repeat, I do not believe it to be poisonous. I have given it a chance on my own life, which it declined to accept, and as I do not lay claim to the constitution of Mithridates, I conclude it deemed itself unequal to the task.

I should be glad to learn that the experience of others differs from my own; for, although I dislike to see a flower I so thoroughly admire connected with such unpleasant associations, I shall be better satisfied if I feel assured that it deserves it.

[It was the opinion of Nuttall, and many others, that the popular notion on this subject was decidedly erroneous, and that the "leathery" leaves, being indigestible, was the cause of the injury, and even, occasionally, of the death of animals that had partaken of the laurel. A popular error of this kind, if it be one, should be investigated and exterminated as soon as possible.—Ed.]

EFFECTS OF COLD WEATHER.

BY BENJAMIN HODGE, BUFFALO, NEW YORK.

It is an old maxim, and a true one, too, that "we are never too old to learn." This remark is, perhaps, quite as applicable to the horticulturist and pomologist as that of any other class of men. The severity of the winter of 1854–5, in the State of New York, and more particularly in the western part of the State, was a general theme of remark; and, in the opinion of many, has hardly been equalled during the past quarter of a century. On the morning of the 6th or 7th of February, 1855, the thermometer sank to 20° and 22° below zero. It was soon ascertained that the fruit-buds of the peach were all destroyed; and, soon after, the discovery was also made, that the trees, too, were all killed. On cutting off the branches of the trees, it was found that the wood was discolored, and quite black; and that all above the snow line, to all human appearance, was quite dead. Although the bark seemed to be alive, yet it was supposed that, on the first opening of spring, or soon after, the trees must wither and die.

Peach growing was now at a discount; and many, without further delay, cut down their trees, and cleared the ground of the rubbish. One gentleman, as I am very credibly informed, cut down his whole orchard of some two thousand trees, which, the autumn previous, had produced a bountiful crop. A neighbor of the writer cut down many beautiful trees which were then just in their prime. But everybody was disappointed. The spring and early summer opened most propitiously, with genial showers, and fine growing weather. The trees soon put on their summer dress, just as fresh and as fine as ever. New, healthy leaves and bark very soon completely covered up and encased the dead wood. The trees made a fine growth, and set full of fruit-buds; and, to a casual observer, appeared

as healthy and as vigorous as ever. And yet, the old wood is literally dead, surrounded by a ring of new, healthy wood. Whether the trees will remain healthy, is a problem yet to be solved.

The writer, having a large fruit farm at Peach Haven, near Niagara Falls, naturally feels much solicitude in regard to the culture of the peach; and has been a close observer in regard to the best treatment of the trees. The centre branches of the trees are very liable to perish at an early day; and, after a few years, the trees present the unsightly appearance of all being dead, except the ends of the limbs. Very close pruning has been found a partial remedy for this evil; and it has been a question, whether it would answer to cut off the whole top of the tree at once? Would the tree be able to withstand this shock, and send out fresh shoots and form a new head? But this is no longer an experiment.

Last spring, Mr. Burdett, who has a fine peach orchard in our vicinity, supposing his trees were all dead and worthless, with axe in hand cut away all the tops of many of his trees, leaving only an unsightly trunk, with perhaps a few rough prongs of a few inches in length. As the season advanced, and the trees seemed to put out fresh shoots, he concluded to wait a little before clearing the ground. The result is, that all of these trees have put out numerous, vigorous, healthy branches, and formed complete, dense tops; in most cases, far superior to the old ones. I am so well satisfied with this, that, should the severity of the winter or spring destroy the prospect of the peach crop for next season, I should, on the opening of spring, cut off the tops of some 2,000 peach-trees, now five or six years old. By the way, I am anxious to learn whether any of our New Jersey, or other peach growers, have ever tried this method.

The pear-tree is so tenacious of life, that you may cut it back with impunity. A tree twenty feet high, may be cut down to within six feet of the ground, and in two or three years it will again form a handsome head. The only remedy that I have ever found for that mysterious disease, *fire-blight* (and which, in my judgment, is a sort of *pear cholera*), is to cut off all the diseased branches at least one foot below all marks of discoloration of the bark. We had no fire-blight here until about five or six years ago; and then it came in true cholera desperation. In a single month, hundreds of trees in this neighborhood were completely destroyed, and hundreds of others very badly injured.

Towards autumn, I directed my gardener to go through my grounds, and to cut off every diseased branch or tree at least one foot below the appearance of blight. He obeyed my orders to the very letter; and I was not a little surprised the next day, in going over my grounds, to find that he had cut down even with the ground several valuable trees, of some eight or ten inches in diameter, and which, I supposed, were not very seriously affected. But, on examination, they were found badly affected in the trunks of the tree as well as in the branches. Others were left merely unsightly stumps, all, or nearly all, the tops being completely cut away. I was quite heartsick, and almost inclined to cut down to the ground these mere wrecks of my once beautiful trees. However, two or three

years have wrought a wonderful change, and the most of those so closely pruned are now among my handsomest and most valuable trees. For the past two or three years, we have had but little fire-blight; perhaps not over three or four cases in a thousand trees.

Extensive orchards of the pear have been planted out during the past four years; and, in many cases, I fear, without much discrimination. The pear seems to be more capricious than any other kind of fruit; and it is a wonder to many, how so many miserably poor varieties ever came to be cultivated. Of the four or five hundred sorts in cultivation, I very much question whether there is one in ten of them equal in value to the old "Orange Bergamot," which my friend Allen and myself had some sparring over in the *Horticulturist*, some three or four years since; and which, in my opinion, is no better than it should be. But it has some redeeming qualities which many others do not possess, viz: It is productive; does not rot at the core; and it will sell. Now this may be deemed faint praise. It is so. But, is there one instance of the pears now grown among us, that possess even these good qualities?

But the world, of late, has been running mad after new varieties; and many of us, in the purchase of these, have caught a Tartar. I will relate a case in point. Three years ago, at the Massachusetts Horticultural Exhibition, the Bonne des Zees, a fine-looking pear, was passed around and tasted by some twenty or thirty of our most celebrated pomologists then assembled in the large tent; and it was pronounced "very good;" and even the distinguished gentleman that now occupies the White House at Washington, expressed his admiration of the pear. Soon after returning home, the writer went to the nursery, and engaged all the good trees of this variety. A good friend and neighbor, who was also at the Boston show, soon after made application for some of the trees, and was not a little disappointed to find all engaged. But mark the sequel. The standard of this variety has fruited each year since; and, although it is uncommonly productive, and fine in appearance, yet it has ever proved a mere juicy, wish-a-washy, insipid, quite tasteless, and inferior thing; every specimen so far falling short of "good." In appearance, it very much resembles the Bartlett.

In orchard culture, for market purposes, it has been found much more profitable to plant out but few varieties, and those of well-tried sorts. In an orchard of some 3,000 peach-trees, the writer has confined himself to four or five sorts; of 1,000 apple-trees, mostly to four varieties; and, of 1,000 or more pears, to some ten or twelve sorts, of which the Bartlett, Seckel, White Doyenné, and Stevens' Genesee, are the most prominent. By the way, I notice that the American Pomological Society class the Stevens' Genesee Pear among those that "promise well." Well, this is truly encouraging for a pear that has been so well known in Western New York for twenty or thirty years. We have some "promising" boys here, of some forty or fifty years of age, who came to the same conclusion a quarter of a century ago.

The next meeting of the American Pomological Society will be held at Roches-

ter next autumn, at which time we anticipate a very large gathering of our pomological friends from all parts of the Union, and also from the Canadas. Genesee has been called the garden of the world. Everything now indicates a fruitful season. We must trust that the exhibition of fruits from Western New York will be worth seeing. And not only this, but the most rare specimens of fruits from the east, the west, the north, and the south, will here meet. A rare chance to compare fruits from all parts of our wide and extended country.

CRITIQUE ON THE FEBRUARY HORTICULTURIST.

BY JEFFREYS, NEW YORK.

Want of Progress in Rural Taste.—There is great difference in the constitution of the intellect, in matters of taste of any kind. Occasionally, one has a nice appreciation of rural objects from early childhood; another has a strong indication of native taste in art; another in mechanics; another in philosophy; another in science; and so on, through the whole catalogue of Divine creations and human inventions. These are God's own endowments, and those thus favored become the schoolmasters to others in whom original tastes of like kind are absent, yet possessing the faculty of cultivating them by the instruction of others. In the creative faculties of original minds, on all these different subjects, "there is a divinity that stirs" within them. The chronicles of all time which lie before us, give striking examples. Abraham and Lot were distinguished farmers, grandly possessed of fine taste in what was both beautiful and useful in rural life. Jacob was a physiologist, circumventing the dishonesty of his wily old father-in-law, Laban. Who had so grand an appreciation of the magnificence of creative power as David, as witnessed in his sacred psalms? While Tubal Cain, descendant of the first murderer, long before either of the others, was as cunning an artificer in brass and iron. Solomon, great in architecture, also displayed matchless taste in the rural adornments of his pleasure-grounds. Several of the prophets show that they had exquisite perceptions of the grand and beautiful in nature; while Christ himself, greater, diviner than all, drew most of his parables from those delightful rural objects strewed along the paths of his own brief wanderings. Virgil possessed not only a natural, but a highly cultivated taste in rural affairs, as shown in his Georgics. Cicero was refinedly ornate in the rural embellishments of his own celebrated villa. In later time, Michael Angelo, with an opulence of original genius and cultivated taste, was a wonder in architecture, painting, and statuary. Lord Bacon, not only in philosophy and letters, but in planting and gardening, was a deep and profound teacher. In later time, Sir Walter Scott and Professor Wilson charmed the world with their appreciations of refined taste in landscape and natural scenery; and our American Downing, had he lived to mature age, would, perhaps, have been equal to any of them in the delightful aptitude of his teachings. So much for minds in which an *original* taste for their chosen pursuits, or recreations, was planted.

In America, grappling with a stern necessity, even down to a recent day, we have, comparatively, few striking examples of refined rural taste in the labors of those who have passed before us. Yet, there are some grand old places in the Revolutionary States, indicating the presence of both a strong original taste, and well cultivated art, in selecting, laying out, planting, and preserving them, well showing that their founders were no *pretenders* in what they did. Within the last thirty years, a better opportunity has been afforded us. With considerable original taste, increasing wealth, and leisure, to pursue the proper study of rural embellishment, many new and beautiful places have arisen from the wild wastes around them; and, although many bald and bastard examples, where a large expenditure of labor and material have been thrown away, exist among them, we have many spots which, when time enough has elapsed to give growth to their plantations, and antiquity to their erections, will present choice specimens of a discriminating taste, and a serene beauty. Yet, *in the mass*, man is wofully uninstructed. We saunter along, heedless of the native beauty which surrounds us, and which we might appropriate to ourselves almost for the asking. We do want schools of taste, and of art, in rural embellishment. But who are to be the teachers? A few only of the English books and authors, from which we draw our ideas, are possessed of either correct taste or competent instruction. Of *native* authors we have any quantity; and how few of them are of any lasting account? The number indeed is small. What we, in America, need is, the understanding of *first principles*. Scarcely any two places are alike in natural position, capabilities, and soils. They require different treatment, and that treatment varied and diversified by the delicate, discriminating exercise of taste, founded in well-established principles, and appreciation of the art to be exercised. We have no such schools; and if we had, where are our schoolmasters? There is scarcely a rural paper in the country but has advertisements of such, and we see some of their labors in the paltry checker-work of door-yards, lawns, and, now and then, a so-called park, stuck full of inappropriate things of no meaning! But we must live in hope, and, meanwhile, strive to do the best we can till a better day shall dawn upon us, or the rising spirit of a few master minds shall teach us with an unction both impressive and lasting.

The Seed Business of the West.—Illustrative, quite, of the very progress of which I have just spoken. Out of their rapid distribution of seeds and tools, we shall, in time, see many good things.

Cultivation of the Pear-Tree.—I hope Doctor Ward is going to do something clever; and more, that he means to let the world know it through the *Horticulturist*, as he progresses. It is now more than a dozen years since pear culture on the quince has been vigorously started in our country. Many a nurseryman has got rich out of them; and, by calling conventions and forming societies, they intend not to keep their lights under a bushel. Now, out of the millions of dwarf pears the nurserymen have sold, I would like to hear of the *very first* dwarf pear *orchard* that has paid expenses. Many tell of pears selling for sixpence, a

shilling, even two shillings a piece, in the fruit-shops, and of a certain tree, or trees, in such a one's garden, which annually yield their owners scores of dollars in their fruits. All this may be so. But, about the *orchards* of *such* trees! where are they? The pear has a thousand, or less, enemies. The blight runs with a zigzag, forked, and sinuous course, through the orchard one year. The slug, and the curled and spotted leaf, like the leprosy, hit them in another. The pestilent field mouse girdles them at the roots in the third; and calamity, *in general*, is after them in the fourth. I have had a little experience in this line myself, and the upshot of success in *extended* pear culture, either dwarf or standard, I receive with great allowance. I hope Doctor Ward will be successful, for, if any man knows how to do the thing, *he* does. It is well that he is so close to Professor Mapes' superphosphates, and the poudrette factories; and if he gives his trees the very best of *garden* culture, manuring them like cabbages, trimming and cutting back to order, thinning out his fruits with scissors, and all that sort of thing, and don't lose them by disease or casualty, and then can get ten dollars a barrel for his pears, or sixpence a piece for them in market, he'll do. His article is interesting, and I hope he will continue the subject.

Garden Wheelbarrow.—This is *one* of the tools. But, when you get it, be careful that it is not a gimcrack affair, to be made over again by your own village blacksmith the first time you use it. One-half of these garden tools, well enough in the invention, are not worth taking home, from the flimsy, dishonest way in which they are put together. Too much like Pindar's razors!

Golden Hamburgh Grape.—If this grape is as good as its mother, the Black Hamburgh, it is an acquisition to the grapery—for its *color* is a high attainment in *such* a grape. If I were to stock a vinery with a dozen grapes, ten of them should be Black Hamburgh, and the other two Golden Chasselas. These two varieties are easily grown, sure bearers, and possess the aggregated virtues of all the others. Only prove the *Golden* Hamburgh what it is described, and I will add it to the others, making *three reliable* grapes.

Residence of John Bartram.—I don't think much of his old home, but I do think very much of the good old Quaker who lived in it; and Col. Eastwick deserves credit for the pious veneration with which he preserves it. I must go and take a look at the old place, when I get time.

Moonlight on Vegetation.—Who doubts its effects? The garden women say they pick double the cucumbers during moon-shiny nights than in dark ones; and they ought to know.

Experiment with the Osage Orange.—I should like to see the Western men, who grow Orange hedges *by the mile*, "pinching" their shoots by way of trimming! No, no, Mr. Alexander, that won't do. A *successful* hedge plant in this country, has got to bear cutting down, or cutting off with a bill-hook, scythe, or shears, as may be, or it's of no use in *farm* hedging. I've seen a couple of models of machines for clipping hedges, to work by horse-power, which, if they work at all, will trim miles a day. We'll know more about these hedges five years hence.

Domestic Notices.

NEW YORK, Feb. 18, 1856.

DEAR SIR: Cannot you say a word in favor of the "Agrostis Stolonifera for Lawns?" From its extreme dwarf habits (rendering frequent mowing unnecessary), combined with its resisting intense sunheat, and for retaining its rich green lines through the summer, it is preferable to red-top, greensward, or any other of the grasses. It is used for the purposes of lawns in the South of Europe, to the exclusion of all others.

Yours truly, J. M. THORBURN & Co.

BURR CREEK, MICHIGAN.

The private correspondence of Downing is good. We never tire of hearing about him.

CHARLES BETTS.

GREEN CASTLE, IND., February 12, 1856.

DEAR SIR: I wish you to send me the *Horticulturist*, and for one year. I am glad to inform you that we have been making up our premium list of 1856, of Putnam County, and made quite a number of your most excellent journal. I think we have, in our list of premiums, some twenty-three volumes of the *Horticulturist*—quite a number with colored plates. We are the banner county in the West, I think, in advertising the *Horticulturist*. I am anxious to have it circulated among our people; I shall do all I can to this end.

Yours respectfully, JOHN S. JENNINGS.

ORANGE WATERMELON SEED.—MR. EDITOR: I see inquiries made as to where the above-named seed can be had. If you will do your subscribers the favor to mention this, I have some seed to spare, and will send, to any person who will remit a postage stamp to prepay the postage on the seed, a pack of one dozen seeds of the above, of my own growing.

I consider it a valuable melon, and easily raised, and one which ought to be disseminated, and not held by a few, some of them charging fifty cents for half a dozen seeds (which was the price of those I first got).

Yours, SAMUEL MILLER, *Calmdale, Lebanon Co., Pa.*

EDITOR OF THE HORTICULTURIST: I am highly pleased with the wonderful discoveries of your "West Town" correspondent (page 94, in your February number). The only drawback is, that he keeps them secret, and has applied for a patent. I hope he may sell the patent-right cheap, for we *Western chaps* would like to know how to keep bugs off vines, especially as he says it is a *sure cure*, and to know how to raise 580 bushels potatoes to the acre, without any manure *except plaster and ashes*.

For our Western corn crops, the crow and cutworm patent will not be so valuable. In planting corn, we go by the old rhyme, when dropping the grains—

> "One for the blackbird, one for the crow,
> Two for the cutworm, and three left to grow,"

and we generally make out to have good crops. I *rather* think we can beat "West Town" in corn, and give it the benefit of the patent to boot. Amongst my books on Agriculture, is one published by David Seaman, in 1853, entitled "The Fruit Raisers' and Farmers' Guide and Receipt Book, and how to Protect against Disease by Working with the Course of Nature." In that valuable work I find the following useful recipe, which I give to your West Town correspondent gratis, the author having never taken out a patent for it. (Page 51.)

"To prevent bleeding at the lungs: Take a hoptoad, and lay it on a hot shovel, and while it is broiling, hold your face over the steam, so as to get the smell and the scent *good*, and the blood will soon stop, &c. &c."

Should any of your West Town correspondents try this experiment, I should like to know the result, for I have not tried it myself.

Respectfully, JOHN QUILL.

Cincinnati, Feb. 15, 1856.

HUNT BOTANICAL GARDEN.—MR. EDITOR: In the December number of the *Horticulturist*, I find an article on the Hunt Botanical Garden, and am desirous of making a few remarks in reply.

Although there is now no prospect of success, yet I feel as one personally called upon to give an opinion on the subject in reply to the before-mentioned article.

Far from being agitated by contentious feelings, I could not overlook the words, "the plans are both pretty pictures, well executed on *paper*, but each wanting in generalities."

Certainly, such matters ought to be closely looked into, and guided by the opinions of men who have had actual experience in, and possess a thorough knowledge of, the subject to be investigated, and all sensible men would be pleased as well as profited by a well-founded, well-directed criticism; but, it requires more self-conceit than I would like to be possessed with, to assume such unquestionable authority as is expressed in that article.

I must confess that I am ignorant of what is meant by "wanting in generalities," or where, and to what extent, "misapplied utility" has made itself apparent; as others, who are well informed respecting it, have not discovered any serious misapplication, and I entertain considerable doubt as to my friend being more successful, were he to undertake an examination with more leisure. A picture may be judged at a glance—this claims no merit as such—but a plan of so different a nature and purpose, that it oftentimes requires a competent person a day or more to give a correct opinion of it, and calls for mental acquirements different from those available to the author of that article, although his knowledge and qualifications may be, and are, very valuable in their proper place.

Although it is not an easy task to delineate with sharp lines what a botanical garden should be, to answer the wishes of so many, and the purposes indicated by its name, it is more than likely that, with a love for the profession, fifteen years' uninterrupted practice, and facilities to see, compare, and examine, on the continent of Europe, one should know something of what a botanical garden should embrace, and what experience I have had here is sufficient to inform me what the Hunt Botanical Garden should have been, had not an ill-tempered wind swept it from the map of Long Island.

I perfectly agree with your correspondent, that it should be adapted to the wants of this great nation, notwithstanding that, with a fair recollection of what has transpired in the cause of horticulture within the last ten years, and a moderate estimate of what will yet follow, I believe I have been little or nothing out of the way.

It would require too much space in your valuable journal, neither would it be interesting to your readers to enter into details, describing the various departments as laid down on that *picture*, but my friend may rest assured, that, considering its location, formation, and area (11½ acres), the plan comprises all that is desirable to have.

"Nooks" are very pleasant and attractive acquisitions in all sorts of pleasure-grounds, if properly situated and sheltered, but I should have little hope of complete success were I to denote their exact position on a plan where the ground has but few or no trees left under which to seek shelter. I prefer rather to form, first, the principal features of the ground, and after having completed the grading, planting, etc., the most appropriate spots for nooks, etc. etc., will suggest themselves, and in each case with certainty of success.

I cannot close this article without remarking, that while I take exceptions to the criticisms of my friend, I must say that much credit is due to him for his exertions and success in grape culture, etc., in acknowledgment of which, I shall lose no opportunity of strengthening our friendly relations.

If the spirited officers of the late Hunt Botanical Garden Association should succeed in calling a similar enterprise into life (which I sincerely hope, and have no doubt they will), I shall not omit to contribute what I may deem due to so praiseworthy an object, and shall be pleased to find others doing the same.

Respectfully yours, AUGUSTUS HEPP, 880 *Broadway, N. Y.*

"MORE GOSSIP FROM THE NORTHWEST." By GEORGE S. TAYLOR, Chicago, Illinois.—DEAR SIR: The pleasant chatty letter from friend *Tallant*, in the January number, will recall to many of your readers the delightful reunion at Burlington last September; and few who were there will fail to fancy, as they read, the kind, genial smile of the *doctor* welcoming them once more to the "beautiful land" of fruits and flowers. No wonder that he is strongly attached to his adopted State, and especially to the lovely, busy, rapidly-prospering and growing city where he dwells. Until we hear further, Burlington can challenge the world for pears, either in beauty, quality, or size; for, although it might have been supposed, and with reason, that such mammoth specimens would deteriorate in flavor, I do not consider, nor have I even heard it hinted, that such was the case. I think, too, that the doctor's "gourmandize," for such the wonderful shoot must of course have been, would be "hard to beat."

What are the peculiar merits of *silex* in the soil, in respect to fruit trees, I am unable to state; no doubt, when finely pulverized, it is a powerful manure, as are, also, all the primitive rocks; witness the benefits accruing to old, worn-out soils from the application of the mud from macadamized roads, especially such as have been formed of broken granite in which quartz so strongly predominates. But the soil on which a great portion of Burlington stands, *per se*, is a red, argillaceous clay, very similar to much of the orchard land of Herefordshire and Devonshire in England, and portions of Normandy and Brittany (take the modern departments of La Manche and Loire Inférieure, for example) in France; and all of these are famous for their apples and pears. Gypsum, marl, all mineral manures, even clay properly applied where it is not originally too abundant in the soil, will be found preferable for orchards, to more powerfully and acutely exciting animal manures.

Another great secret of the eligibility of Burlington as a fruit-growing country, lies (not at the bottom, but) in the Mississippi. The water attracts the late frosts to its surface. This is an operation of nature which has been noticed in other similar localities, but only acts in this manner when the land is, as at Burlington, sufficiently elevated above the water. I opine that, on low lying lands, the vicinity of running water would be objectionable as attracting the frost to its level.

And now, I want the doctor to amend his declaration in regard to "those strawberries," or I shall certainly demur, both generally and specially. I admit, unreservedly, his averment that, at Burlington, the strawberry is "in its prime at the end of May," but the doctor must have been sadly informed as to the time of its ripening "around Chicago." In 1854, I gathered ripe, early, scarlet strawberries from plants, only set out in April of that year, on the 15th of June, and last year, from the same plants, on the 10th; and the early scarlets were ripe, in quantities, on the 17th of June. My Hudson strawberries have ripened for the last three years, not later than the first of July, and we have always plenty for the *Fourth*. My garden is made on about the worst description of land in Cook County, but I have always good crops, and Dr. Egan, Hon. M. L. Dunlap, and others, have abundantly proved that as fine strawberries, if not quite as early, can be raised "around Chicago" as anywhere

on this continent. The fact of the matter is, our climate is from ten days to two weeks later than that at Burlington; but six weeks' difference in two hundred miles, even if we were due north, is rather too much. The good doctor must have been thinking about Pembina. G. S. T.

Gardeners. By Robert Meston, gr. to Col. A. J. Polk, Ashwood, Tennessee.—In the January number of the *Horticulturist*, you give your readers a chapter on gardeners and experimental gardens. Much as has been said upon this subject by editors, amateurs, as well as the profession, the first thing to be considered is this: Who are foreign gardeners? The answer is, they are men of foreign birth, educated to the profession before they emigrate to this country. These are truly foreign gardeners. Then the question arises, have all the men in this country calling themselves gardeners, been educated as such abroad? No; not one-half of them. I must therefore assert, that they are not foreign, but American gardeners; this is my argument. Your readers may judge whether I am correct or not. Suppose a young man emigrate to this country, bringing no trade or profession with him, and, after some time, he become a landscape or portrait painter, or excels in any of the fine arts, do we acknowledge him as a foreign artist? The American press will speak of him in terms of praise as an American artist, and justly so, I think. A foreign land gave him birth, and America gave him a profession; therefore, he is an American artist. Now, if this is just and true with the artist, it must be just and true with the gardener; and, I must say, I think the great majority of gardeners in this country are of American growth. Every good gardener in this country, I am sure, would do all in his power to bring about a better state of things, and would hail with delight horticultural colleges, or experimental gardens, and give his mite for the support of them. Now, as it respects native American gardeners, educated at an Horticultural College or Experimental Garden, which amounts to the same thing, I much question whether one-half of the boys brought up to the profession would stick to it in after life. The complaint has been, in this country, that the foreign gardener has not been educated to suit the times; therefore, there would be produced a better class of educated men than the present state of horticulture can boast of. Now, we will suppose a boy, of fourteen years of age, enters one of the above institutions, and remains a student until he has passed his minority; what is the course of his studies during the seven years (we will suppose the place thoroughly established, where every branch of the profession can be taught), bearing in mind that this boy has a moderate English education before he enters the establishment? The first thing taught him in the establishment is manual labor; his hours of vacation from labor would be something like the following:—

The first problems of geometry and land surveying, agricultural chemistry, botany, vegetable physiology, mineralogy, rural architecture, and landscape gardening; at least a slight knowledge of the Latin and Greek languages, that is, if he wished to become a good botanist. These are a few items that are to be stowed away in the memory of a good, practical gardener. Without going into further details on this subject, we will suppose a young man, at the age of twenty-one, with a knowledge of all these things, we should call him a tolerably well-informed young man; the next thing is, he offers himself to a nurseryman to work for a dollar per day, or he goes as head gardener to a gentleman; what are his wages? From 25 to 35 dollars per month. Who are his associates in said family? Ostlers, cow-boys, and the servant-girls of the house; he is, in fact, a serving gardener, and is looked upon as one of the servants of the establishment, and this is what he gets after seven years of hard labor, and harder study. Will a young and enterprising native American stand it? I think not.

Now, take this same young man, and give him the same amount of education, the same time to study in any of the higher professions, which will take no longer, and, in fact, no

better education. As soon as his minority is passed, he comes out an acknowledged gentleman, most probably gets into the best society, and associates with educated men. Mark the difference. Some time since, a writer in some horticultural paper, stated that he never knew a foreign gardener to bring up his sons to the business. I think I have stated the reason he does not: too many years of labor and study for too little pay.

Some of your readers may say, if this is so, how is it that Great Britain has such good gardeners? The answer is nearly this: all the gardeners in that country are self-educated men; they commenced the profession with little or no learning; when they were cast upon the world (as Sam Weller says), to play at leap-frog with its troubles, they jumped the first back that presented itself. Gardening in England offers employment to tens of thousands of men; there you may find every kind of gardeners, from Sir Joseph Paxton to the gentleman that has no objection to milk the cows, and tend the garden. Philip Miller, the first great gardener we have any account of, was born in obscurity. Loudon says he raised himself to a degree of eminence never before equalled in the character of a gardener. He was born in 1692; he maintained a correspondence with the most eminent botanists of the continent of Europe. Amongst his correspondents was Linnæus, who said of his Dictionary: *Non erat Lexicon Hortulanorum sed Botanicorum;* and by other foreigners he was emphatically styled, *Hortulanorum Princeps.* So it is, at the present time, with the great majority of British gardeners; they are self-educated and self-made. In Great Britain, every avenue of labor is closely filled with manual as well as mental labor, and, therefore, every employer in any branch of business, has a great variety to choose from; hence it is they have good gardeners. Now, what has been the case in the States? The reverse of all this. Our avenues of labor are not filled up to the same extent they are there; the consequence is, the garden has gone in search of a gardener, instead of the gardener going in search of the garden, and when this is the case, the majority of the gardens will be decidedly bad. I know that, for the last twenty years, the supply has not equalled the demand, and that has brought into existence a lot of self-styled, but not self-made gardeners.

My object in writing this letter is, first, to vindicate the true foreign gardener, and to prune out the quacks, and the following is a plan, I think, might be adopted. As we have in this country a great number of good horticultural societies, I propose to use them to advantage to the employer and the employed, to wit:—

That every horticultural society shall appoint a committee of four or six of the best practical gardeners belonging thereto; the duty of said committee shall be, to examine any applicant calling himself a practical gardener, wishing to fill a situation as such; and, if said applicant be found competent by the committee, he shall be entitled to a printed certificate, to be filled up by said committee, and signed by them, and the President of the Society. Now, supposing some such thing as this was in operation in this country, every competent gardener would soon become aware of it, and submit to it with pleasure. If such a plan was adopted, and every employer requiring a gardener, if the latter is a stranger, he should exhibit a certificate from the nearest horticultural society. The gardener, on receipt of his certificate, shall pay said society any fee the society may think reasonable. If something like this could be done, the complaints would soon be stopped; if the demand is greater than the supply, don't employ the trash; you can import good, responsible men.

[Mr. Meston has stated the case in an intelligent manner. The real difficulty to be encountered in America, is the supposed fact that other employments afford an apparently higher field of social and pecuniary compensation; but this is only on the surface. In the first place, in an intellectual point of view, how much higher are the enjoyments of a scientific gardener than those of most mechanical businesses? If a youth fails to profit by such opportunities as our correspondent proposes, he must be, and deserves to be, only a manual laborer; but a really good gardener can always get, after a few years of experience, a nursery

of his own. Generally speaking, he succeeds, and becomes an independent, happy member of society, with a far better position than one-half of the doctors and lawyers who have chosen those professions because of their seeming facility to wealth or social circumstances. The members of our Horticultural and Fruit Growing Societies are as good men, as well informed, and as free to come and go as they list, as the mass of physicians. They are quite as good companions, at least, as the fashionable dandy, and, in our opinion, much better; they are conscious of being instrumental in forwarding the world's progress; their minds are full of intelligence; their business is a source of perpetual delight; they never lack subjects of thought and contemplation; and they should be the most devout adorers of a supreme first cause, because the evidences of *design* are always springing up before them. They are, too, obtaining, by their intelligence and probity, an enviable social position, which improves precisely in the proportion that they deserve it. Bartram was a gardener; Dr. Lindley is the son of a broken down gardener; Sir Joseph Paxton was employed all his life in the same capacity, and our correspondent quotes himself, Philip Miller as born in obscurity. Talent and industry, with education such as a smart youth can get in this country, if he chooses to apply himself, are sure of reward.—Ed.]

How to make Vinegar.—In the *Horticulturist* for December and February, there are notices of the Vinegar plant, there described as "a minute fungus, allied to the mucor or mould," "*Penicillium glaucum*, of which the mycelium or spawn forms a tough," "leathery web." This description of the spawn would answer for the substance usually called "mother," always accompanying good cider-vinegar when left a month undisturbed, whether producing the vinegar, or being generated by it, and leads to the suspicion that the "mother," if not the spawn of the vinegar plant, stands in the same relation to one of the same class, and of nearly the same properties; as it is frequently used here for the purpose of hastening the formation of vinegar from cider, and it is generally believed to be useful for that purpose.

Leaving the vinegar plant till more is known of it and its properties, I propose to describe the method I have used for making vinegar from cider, and which, when adhered to, I have not known to fail. The cider used for making vinegar, is generally made in the early part of the season, before the weather becomes cold. The process is as follows: Grind the apples; put the pomace in open vessels a day or two, then press out the cider, put it in open tubs or casks, cover the cider one inch thick with pomace; let it remain fermenting till the pomace shows signs of separating into parts; then skim off the pomace, put the clean cider into casks, rejecting the sediment at the bottom; place the casks of cider under cover, and protect it from freezing in the winter; place a brick or board over the bung-hole, and, for a month, keep the vessels full; it is important that the casks be well cleaned from mould and mustiness; where either is suspected, it is proper to burn sulphur within them, and, afterward, rinse carefully. At any time after the cider has been drawn from the open tubs, procure good cider vinegar, known to be such, and not that manufactured in part from tartaric or sulphuric acid; let it be in such quantity as you suppose necessary to begin with—suppose one barrel, draw off one-half, and put it in another cask; then, once in a week, add to each a gallon of cider (or, if you choose, two gallons); continue to do so till the barrels are full; afterwards, draw from each, weekly, two gallons, putting it into other casks, and fill the same quantity of cider into each that you have drawn from; in this way, vinegar can be made, with certainty, to any extent. It is better not to sell till the succeeding season of cider making; first, because, although the vinegar may be merchantable, yet it may be wanted to increase the stock, and, if not, it will improve at least till the end of a year, and perhaps longer; and secondly, the casks (which, to the farmer, causes the principal outlay in making vinegar) will last longer if kept full, or part full, than if empty.

I believe this method is the same in principle as that of making vinegar by using the

vinegar plant; in each case, a liquid substance, capable of, and disposed to, the acetous fermentation, is brought into contact with substances that have, in part, undergone that fermentation, and not passed beyond it. The result of the contact is, that the action, originally confined to the one part, is continued through both.

A similar process takes place by producing the pannary fermentation, in bread, by yeast or leaven, causing and extending something like organization through the mass. And one as remarkable, and not dissimilar, is the action produced in the human body by inoculation.

The mixing of pomace with the cider, when pressed, and leaving it to ferment, is not essential; it is, however, useful in getting rid of much sediment that is useless.

The periods of mixing and quantities mixed, are those I have used, and may be varied: but, by mixing at such periods, and in such proportions, the vinegar will not, at any time, be made perceptibly less acid by the mixture. Vinegar is frequently made of water cider, but the water does not become vinegar; the vinegar is only so much weaker by the water in its composition.

Respectfully, A. W. Corson.

The Weather.—The *Horticulturist*, like the "honest angler," is a great weather watcher. It may therefore be interesting to compare the present hard winter, and its effects, with similar seasons in former years. This I have an opportunity of doing, by referring to the records of the Secretary of the "Cincinnati Angling Club," for the past twenty-six years.

Besides recording the exploits of the "brethren of the rod," with their finny prey, it was made the duty of the Secretary to take careful notes of the weather.

In *duration* of cold weather, the winters of 1830–31 and of 1831–32, will compare with the present, and, in *severity*, the month of February, 1835. The cold weather commenced on the first day, and continued throughout that month with but little intermission. The 6th, 7th, and 8th, were *intensely* cold days. The thermometer was down to 17° below zero on the 7th. This was the coldest day in this vicinity, since 1797, until the present winter, when the mercury fell, on the 9th inst., to 20° below zero, in an average of observations within ten miles around the city.

In 1831 and 1832, the peach and early cherry buds were killed; both were bad fruit years. In 1835, the peach, cherry, and many of the pear buds, were destroyed; and, in some localities, the peach-trees, and finer variety of cherry-trees, were killed. The orange-trees in Louisiana and Florida were killed down to the ground in 1835.

Most of the peach buds, and the buds of the finer variety of cherries, are destroyed; and, in some instances, the young trees.

It is reported, that in some warm situations, where the grape buds were swelled prematurely in autumn, that they are also killed. But I think the grape, apple, hardy pears, and plums, and the Morello cherries, are safe yet.

R. Buchanan, *Cincinnati*, 22d of January, 1856.

A Suburban or Country Residence.* By R. Morris Smith, Architect, Philadelphia.—This cottage was designed by me for a suburban residence for a small family, and was erected near Philadelphia. It would be suitable as a country residence, or, with some small additions, as a farm-house. It was intended to combine the comfortable accommodation of a family of moderate size; some degree of luxury in the interior, and picturesque ensemble, with a neat, yet roomy compactness, that should avoid the large, unnecessary expenditure so frequently caused in building, by a slovenly and half-studied plan (through which we often find large, useless, yet costly spaces left here and there, and dignified, on the plan, with the names of "lobby, passage, ante-room, vestibule, salon," and what-not, unless in the

* See Frontispiece.

upper stories, where they are more generally *not indicated*); and thus to bring the building within the compass of moderate means.

The actual cost of this building was about $3,500. The exterior is designed after what is termed the Italian bracketed manner, a style much in vogue for country buildings, but differs from the common examples in partaking somewhat the character of the "Swiss" cottage. The first floor comprises—1st. A drawing-room, 15 feet by 27 feet, with a bay window, 6 feet by 4 feet, which commands a very fine view, fifteen or twenty miles in every direction. This room is surrounded on two sides by a wide veranda, between which and the drawing-room, the communication is by glass doors. 2d. The hall, 7 feet 6 inches by 19 feet, opening on the veranda, at the back, and on the front porch, at the front end. 3d. The dining-room, 13 feet 6 inches by 18 feet, and enlarged by a bay of the same size as that in the drawing-room. This room communicates with a china-closet under the main-stair, and a pantry-closet, 4 by 4. This latter has next the kitchen, a small opening with a slide, by which hot dishes can be passed through. 4th. The kitchen; between this and the dining-room, the back-stair ascends to the second story, and descends to the cellar, where there is a large pantry or "cold cellar," 3 feet below the level of the other cellars, a hot-air furnace with the necessary bins for coal, &c. The kitchen is 13 by 14 feet, with a closet, a large dresser, and a range with boiler. The summer or wash-kitchen, besides cooking apparatus, has an iron sink with hot and cold water.

The ceilings in the first story are 11 feet in the main, and 8 feet and 6 inches in the back buildings. In the second story, the space over the drawing-room is divided into a larger and a smaller room, 15 by 15, and 15 by 12, while the space over the dining-room is in one, 18 feet long by 13 feet 6 inches wide. The space at the front end of the hall, 5 feet by 8 feet 6 inches, including partitions, is divided as follows: 1st, two 3 inch closet partitions; 2d, a large central closet, 5 feet by 3 feet, communicating with the room over drawing-room by a two feet passage, and with a window on the porch balcony; 3d, a closet 3 feet by 3, in the angle of the L, formed by the above closet and passage, and opening also into the drawing-room chamber; 4th, a closet 5 feet by 2, opening into the dining-room chamber. The smaller drawing-room chamber has a closet partly in the thickness of the wall. Over the kitchen is a small room, 12 feet by 13, with a recess closet, which communicates with the main-stair landing by the back-stair quarter-pace. It will be seen that this room is 2 feet smaller than the kitchen. This 2 feet is a short passage thrown into the bath-room, which is over the dining-room closet, and 2 feet larger both ways, being 6 feet by 6, or 8 feet with the passage. The bath-room has hot and cold water, and water-closet. The bath-tub against the dining-room partition, and the sloping end of the tub being next the back-stair, head-way for the stair is contrived under it. The second story ceilings are 9 feet main, and 8 feet back. There are two finished attics; the one over the drawing-room is 15 feet by 27, with a window at each end, and could be divided easily into two good sized rooms. The other, over the dining-room, is 13 feet 6 inches by 18 feet. These are level-ceiled for two-thirds of their space, and the slope-ceiling approaching the floor nowhere nearer than 6 feet. The level-ceiling is 8 feet high.

The cupola is 7 feet 6 inches by 7 feet 6 inches, and a most magnificent prospect is commanded. The cupola floor is 6 feet above the third floor, and is reached by a stair running crosswise of the hall, while between the two floors a space 5 feet by 7 feet 6 inches, is appropriated to closets. The chimney flues are gathered together in the loft into one stack, which rises behind the cupola, and is concealed by it. It will be seen that, in this neat cottage, every foot of space is turned to account, while ample accommodation is obtained for the moderately sized family for whom it was intended.

CINCINNATI.—Our correspondent at Cincinnati says, their coldest days were the 3d and 4th

of February, 28° to 24° below zero, and the ice in the river 18 inches thick; snow in the central and northern part of the State averaged over two feet in depth.

Lemons.—It is strange, says the *Texas Gazette*, that no one has entered into the production of this fruit upon the coast of Texas as a regular business. The production of lemons alone would be a profitable employment. There is no danger of glutting the market, however large the product may prove. Last year there were imported into Boston, from the Mediterranean alone, 46,000 boxes of lemons and 47,000 boxes of oranges. These are but insignificant items in the total imports of the United States during that time. Upwards of thirty dollars worth of lemons have been sold in a single season from a young tree in Galveston. No trouble but that of planting is requisite.

Duchess d'Angoulême and Sheldon Pears.—The annexed is the outline of a Duchess d'Angouleme Pear (Fig. 1) that grew last season in the garden of Thomas R. Thompson, in Elizabethtown, New Jersey, on a standard tree taken from the nursery of Mr. William Reid. It was forwarded to us anonymously, and we consequently felt some doubt about the enormous proportions; but, on application to Mr. Reid, the well-known nurseryman there, we received the following note:—

Elizabethtown, N. J., Nov. 28, 1855.

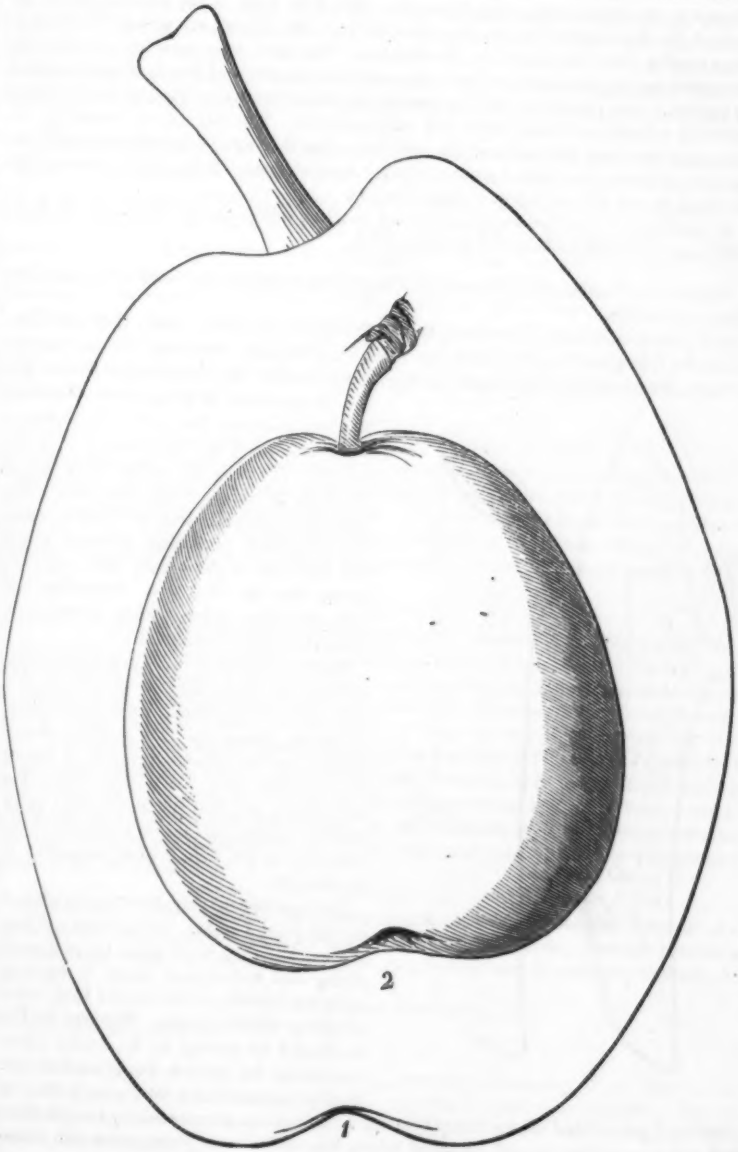
J. Jay Smith, Esq.—Dear Sir: The specimen of Duchess d'Angouleme Pear which you refer to, the outlines sent you by Chas. Davis, Junr., of this place, grown by Thos. R. Thompson, of Elizabethtown, is correctly described. The measurement was 15 inches longitudinal circumference, by 13½ inches, as represented. This Pear was brought to my place by the grower, to look at before being eaten. I had heard of this Pear before I saw this specimen, but having so many fine specimens, I took no notice of it until I saw it; I at once thought the size exceeded anything I had ever seen, even putting me, as you observe, in mind of a monstrous specimen I saw at some exhibition, made out of wax. It was very solid and heavy, and, to all appearance, juicy and perfectly melting; the weight is correct, having been weighed by several scales in town, viz: 1 lb. 12 ozs.

Yours, &c., Wm. Reid.

Fig. 2, Sheldon Pear.—The Duchess is so large, that we have availed ourselves of the space to figure again that growing favorite, the Sheldon, of which Dr. Brinckle has kindly favored us with a better description than has yet appeared.

Synonyms.—Bland, Huron, Wayne, Wisner. *Size*, large, two and three-fourths to three inches long by three to three and one-fourth broad; sometimes weighing sixteen ounces. *Form*, usually roundish, obovate, sometimes obovate, inclining to pyriform, occasionally truncate. *Skin*, green russet, becoming yellow russet, sometimes only faintly russeted, and very rarely with a brownish-red cheek. *Stem*, variable in size, usually five-eighths of an inch long by three-sixteenths thick, often one-half by one-fifth, occasionally one by one-eighth, inserted sometimes obliquely, in a narrow, superficial, and, occasionally, rather deep cavity. *Calyx*, small, segments deeply cut, usually open, sometimes closed, often partially reflexed, set in a basin rather variable, usually superficial and narrow, sometimes wider and deeper. *Core*, medium. *Seed*, small, brown, five-sixteenths of an inch long, nearly three-sixteenths wide, and one-eighth thick. *Flesh*, yellowish white, buttery, melting, abounding in juice, texture granular, with some grittiness about the core, extending to the stem and calyx. *Flavor*, rich, perfumed, and somewhat vinous. *Quality*, "very good." *Maturity*, October. *Wood*—young shoots, yellowish brown; old wood, grayish brown. *Growth*, upright.

History, &c.—The Sheldon Pear is a native of Wayne County, New York. The original tree stands in the town of Hunn, on the premises of Major Sheldon, and sprang from seed



DUCHESS D'ANGOULEME.

planted by his father nearly forty years ago. Two other trees in the vicinity, one on the farm of Mr. Norman Sheldon, and the other on that of Mr. Wisner, are also said to be seedlings bearing fruit very similar to the Sheldon. They have been carefully examined by competent judges, who assure us that they present no appearance of ever having been grafted or budded. And yet, no one who has seen the fruit from these three trees, can for a moment entertain a doubt as to their perfect and entire identity. The only way of reconciling the discordant facts and statements of the case, is to adopt the more than probable conclusion, that two of them are unworked suckers from the remaining one. Such, I have been credibly informed, is now the conviction of Major Sheldon.

A description of the Sheldon was published in *Honey's Magazine of Horticulture* for June, 1851, and in the *Horticulturist* for January, 1853.

PRUNING THE RASPBERRY.—The accompanying figures represent the wood of the preceding summer's growth.

The portion with buds, marked *a a*, is from the upper part of the shoot; that with buds, marked *b b*, is taken from the lower part of the shoot or cane. The buds *a a*, can scarcely be termed blossom-buds, inasmuch as they do not contain the rudiments of flowers like the blossom-buds of larger fruit; but each of them possesses the power of producing a branchlet, and on this blossom-buds are formed. The buds *b b*, on the lower part of the cane, do not generally push unless the upper have been cut away, and then the lower are stimulated, producing, however, shoots and fruit later in the season than those obtained from the buds *a a*. Advantage has been sometimes taken of this, to procure a succession of fruit in autumn.

Raspberry shoots, or canes, growing up in one summer, and producing fruit in the next, and then dying to the ground, a succession having, meantime, sprung up. The pruning usually consists in the obvious operation of cutting away all the dead wood—that which has borne fruit; and, in the shortening that which is alive, thinning the canes so as to leave three, four, five, or six, from a plant, according to its strength.

An improvement may, however, be effected on this general mode. As the finest and best of these fruits are, in all cases, the produce of strong and well-ripened canes, it becomes necessary that the shoots should have every advantage afforded them. This may readily be effected by causing all the former year's canes to be cut down to the ground as soon as they have produced their crop, instead of allowing them to stand till the winter or spring; this removes an unnecessary incumbrance, and, at a season when sun and air are of infinite importance to the young canes, and, consequently, to the succeeding crop.

In autumn, or the early part of winter, the young canes should be shortened to about four-fifths of their original height, or to the place where the growth of the upper part of the shoot forms a sort of bending or twisting. They may then be either tied to stakes or arched, by tying their tips to those of the adjoining plant. When a late succession of fruit is desired, some plants may have all their shoots cut back to within a few inches of the ground.

Vinegar Plant.—Two of our correspondents say that the vinegar produced from the vinegar plant is as good for pickling, or any other purpose, as cider vinegar; to make it *as sour* as which it is only necessary to add a little more sugar, or, what is better, molasses.

Vinegar Animal.—Huc, in his travels in China, gives a curious account of the "Vinegar Animal," a polypus found in the Yellow Sea, which is placed in a large vessel filled with fresh water, to which a few glasses of spirits are added; and, after twenty or thirty days, this liquid is transformed into excellent vinegar as clear as spring water, very strong, and of a very agreeable taste. Additions of pure water, without any more spirit, are all that is necessary to insure a perpetual supply. Like other polypi, it propagates from a detached limb. The formic acid of ants, and the exudations of the slimy grub which feeds on our pear leaves, contain vinegar.

Muscatine, Illinois.—Portions of a new Directory for 1856, of Muscatine City, Illinois, have been forwarded to us. It is compiled by John Mahin, and contains much valuable information in the way of statistics. It appears that the population of Muscatine County in 1838 was 1,247, while in 1855 it reached 14,000. The work contains tables of the early and late frosts. The earliest is October 8th, and the last June 6, the middle of May being the average. The table of rain is complete, and was made for the Smithsonian Institute by T. S. Parvin.

Grass.—Ruskin, in his last volume of *Modern Painters*, remarks upon grasses as follows: "Observe the peculiar characters of the grass, which adapt it especially for the service of man, are its apparent *humility* and *cheerfulness*. Its humility, in that it seems created only for lowest service—appointed to be trod on, and fed upon. Its cheerfulness, in that it seems to exult under all kinds of violence and suffering. You roll it, and it is stronger the next day; you mow it, and it multiplies its shoots, as if it were grateful; you tread upon it, and it only sends up richer perfume. Spring comes, and it rejoices with all the earth—glowing with variegated flame of flowers—waving in soft depth of fruitful strength. Winter comes, and though it will not mock its fellow plants by growing there, it will not pine and mourn, and turn colorless and leafless as they. It is always green, and is only the brighter and gayer for the hoar-frost."

Cottage Life.—"How I should like," said Grattan, one day, to Rogers, "to spend my whole life in a small, neat cottage! I could be content with very little; I should need only cold meat, and bread, and beer, *and plenty of claret*." The idea of a well of Bordeaux, in place of the

"Willowy brook that turns a mill,"

is capital and characteristic.

Contradicting.—If we are not mistaken, we have the counterpart of the following in America: One of Rogers's friends said, that ——— was so fond of contradiction, that he would throw up the window in the middle of the night, and contradict the watchman who was calling the hour!

EDITORS TABLE.

THE NEW YORK HORTICULTURAL REVIEW, issued in New York, having been merged in the *Horticulturist*, subscribers to the former will be supplied from this office for the remaining period of the year for which they have paid.

The *Horticulturist* is now so well known and established that the undersigned feels confident his own subscribers will at least not be losers by the exchange, and he cordially invites them to become readers of a work that is esteemed wherever it is known.

In taking leave of my friends, I plead only pressing business engagements, which oblige me to give up a post that otherwise it would have been both my pride and pleasure to have continued.

C. REAGLES, *Editor and Publisher.*

New York, March 15, 1856.

NOTICE.—The Subscribers to the *New York Horticultural Review* who wish to possess the *Horticulturist* complete for 1856, can do so by remitting one dollar. Those who do not desire this will be supplied for the six months they have paid C. Reagles in advance.

SPRING.—Who would quarrel with winter when May was present, or grieve over the many disasters that are passed, when the lilac and the apple-blossom were about to present their accustomed beauties? Adieu! all ye dead foreign interlopers, who come among us to rival our hemlock, first king of evergreens, and all the frightened array of false recruits whom we had taken into our confidence, and who have deserted so soon; we grieve not for you. We would fain have cultivated and enjoyed some of the foreign world's wonders of beauty, but many have faded, and we must look about, and care for those that faithfully stick by us amid the wintry storms, and cheer us with their brightened faces when spring reappears.

The full returns of plants injured or killed cannot be fully ascertained at the time we write, but in our May issue we hope to record what has been the experience in various points of the compass, and we now invite information from our friends.

The following lines from Mason's "English Garden," will strike some of the sufferers as just:—

> "Nor will her prudence, when intent to form
> One perfect whole, on feeble aid depend,
> And give exotic wonders to our gaze.
> She knows, and therefore fears, the faithless train:
> Sagely she calls on those of hardy class
> Indigenous, who, patient of the change
> From heat to cold, which Albion hourly feels,
> Are brac'd with strength to brave it. These alone
> She plants, and prunes, nor grieves if nicer eyes
> Pronounce them vulgar. *These she calls her friends,*
> That veteran troop, who will not for a blast
> Of nipping air, *like cowards, quit the field.*
> * * * * * *
> Warn'd by his error, let the planter slight
> These shivering rarities."

This advice is now forced upon us. In general, to "slight," or plant but few of those rarities of foreign origin which have not been thoroughly proved in your own latitude, is a good rule.

THE OHIO POMOLOGICAL TRANSACTIONS, 1855 and 1856, have been issued in one neat pamphlet, of 64 pages. The discussions will be found interesting and valuable, tending as they do to clear up unsettled opinions, and bringing the cultivator nearer to the facts. The topic of transporting trees on railroads was brought before the society, and the conclusion arrived at by Mr. Bateman, who had corresponded with some officers of roads, was that it

was cheaper and better to pack trees in *boxes*, when it can be done, as most of the roads will then carry them at the rates of other light goods; this is a correct move. Mr. B. does not hesitate to publish the names of those who do not do their duty in this matter; a reform is expected. Mr. Ernst said his only hope for cherries, in the region of Cincinnati, was the mahaleb stock, and the pyramid form, which has branches to the ground to furnish protection from the vicissitudes of summer changes; for standards he recommended budding the finer varieties at some height, making the body of the mahaleb stock. Mr. Elliott had practised root pruning on the pear root, and had produced fruit just as early as if grown on quince; he did not recommend planting on the quince root, unless growers expected to cultivate their trees highly, and nurse them as carefully as a woman tends her child. As a general tree for orchard culture, he thought the quince stock should not be used. This agrees with the results arrived at in the New York meeting, and coincides with the opinion of our correspondent, Dr. Ward. A very good committee was appointed to attend the National Convention, at Rochester, the coming fall. There is much to interest in the work, including the address of President Ernst.

The Brooklyn Horticultural Society's premiums for 1856, embrace a great variety of plants and vegetables.

The Transactions of the Wisconsin Fruit Growers' Society have been published at Milwaukie, in a handsome pamphlet of sixty pages, which contain matter of much instruction. They reached our table after this number was ready for the press.

Mount Vernon Horticultural Society.—Its Constitution and By-Laws are upon our table, but, except that it is printed in New York City, there is no clue to the place where said Society is located.

The Proceedings of the Fruit Grower's Society of Western New York have been published, making a very valuable work for reference, of 140 pages. Thirty cents, in postage stamps, remitted to H. E. Hooker, Rochester, will procure a copy.

The "North Western Farmer," Issued at Dubuque, Iowa, appears to us to meet the wants of that region remarkably. The lady at the head of the "Ladies' Department" would grace any position.

The Premium List of the Cincinnati Horticultural Society, for 1856, is most liberal. The $100 premium for a cheap, practical and efficient remedy for the curculio is continued, and $500 for a new hardy grape, a good bearer, making a light colored wine, superior in all respects to the Catawba, as a still and sparkling. Our friends should keep a bright lookout, and pick up the money.

Resolutions of the Horticultural Society.—At a late meeting of the Pennsylvania Horticultural Society, the following extraordinary preamble and resolutions were adopted in reference to the proposed supplement to the Act of Consolidation, authorizing the Councils to sell the Centre Squares, at Market and Broad Streets, and purchase more extensive grounds:—

Whereas, This Society has in view, as among the objects of its creation, the rural adornment of our city, the securing of pure air, and necessary recreation for the greatest number of its inhabitants, and the promotion of the prosperity and happiness of its entire people by multiplying the means for a cultivated taste in the walks of nature. Be it, therefore,

Resolved, That the proposition for the sale of the "Centre Square," and the conversion of the proceeds thereof into more extended accommodations for the benefit of the public, meets with the cordial concurrence of this Society.

Resolved, That this Society regards those plots of ground known as the "Centre Square" as too diminutive to attract any considerable number of visitors, and the resort to them on the part of the young as attended with no little danger, on account of the proximity of the railways, and the consequent peril of crossing them whilst the cars are in motion.

Resolved, That this Society would rejoice to see the "Centre Square" occupied for business purposes, as it was originally intended to be by the great founder of the city; whilst the public would gain largely by its exchange for other grounds in more eligible portions of it.

Resolved, That a copy of this preamble and these resolutions, signed by the President and

Secretary, be forwarded to our Senators and Representatives in the General Assembly, at Harrisburg.

We cannot but regret this action of our fellow-members of a valuable Society, and trust their resolutions may not prevail. Give us more lungs, but do not curtail or destroy what can never be replaced. If a greater amount of ground were procured out of the town, it would be less useful than space within a thickly populated section.

Downing's Letters are closed to-day with regret that they are so few. It must be that some of our readers possess notes and letters from him that are worthy of publication.

A lady, whose communications we always value, makes the following remarks, which are worthy of consideration. She says:—

"You are favoring the admirers of Downing with a rare treat. We are all a little curious to peep behind the veil which separates the public life of one we admire from his private character. Our admiration of public deeds is enhanced when we find the *real* life so every way worthy of respect and love.

"Is there not a good deal of contagious enthusiasm mingled with our admiration of Downing? An enthusiasm enhanced by the manner of his early death. *Comparatively* speaking, we might say there were few who knew his real worth—and how admirable he was—till he was gone from us forever? Downing was the pioneer in the broad and beautiful field of 'Rural Art and Taste.' Other minds as great and possessed of as varied talent, and, perchance, as capable of imbuing the people with a love of the beautiful, *may* come after, but for a time they will appear to follow in his wake, will seem, if not to copy, to gather suggestions and impulses from one 'gone before.' Goethe says, 'that a man should be able to make an epoch in the world's history—two things are essential—that he should have a good head, and a great inheritance, as Frederick the Great inherited the Silesian war, Luther the errors of the Popes,' &c. So Downing inherited the public's lack of taste in rural architecture and landscape scenery. This want of beauty in the surroundings of our country homes was felt and admitted, but the great mass had no realizing *active* sense of the fact. The possessors of rural homes were not wide awake as to the idea that each had individually something *to do* to better this condition of appearances.

"I have a friend so well versed in Downing's writings that her husband says his sayings are household words—oracles not to be disputed. I lent her some bound volumes of the *Horticulturist*, to prove to her that her favorite shade still hovered over it."

Labels for Trees.—Zinc labels are prepared in the following manner: Take half a drachm of lampblack, one drachm of verdigris, one drachm of pulverized sal ammoniac, and dissolve them in ten drachms of water. This will form a permanent ink, which may be used for writing upon strips of zinc, and will last as long as the labels.

The Muscadine Grape.—The New Lebanon proprietors of the Muscadine grape are very much dissatisfied with the opinion expressed at the Pennsylvania Horticultural Society respecting this fruit. They think the sample sent was received in bad order; it is extremely delicate, and will not bear close confinement or long keeping, and in unfavorable seasons it drops from the vine soon after it is fully ripe, and loses its delicate and delicious flavor. In good soils, when the vine is closely and properly trimmed, it will hang, they say, for weeks in good condition. It is popular in the Northern States, and they do not consider that it has had a fair trial here. Next season we shall, perhaps, have a fuller report. The demand for the vines is declared to be great. Will Messrs. Hawkins & Stewart forward a root or two hitherward for experimental purposes?

German Experiences.—A friend has translated the following from the *Frauendorfer Blätter*. Will he favor us with his present address?

The unpleasant odor diffused through water in vases in which cut flowers are kept, it is said, may be prevented by placing a small strip of sheet iron in the vase.

In Italy, grapes are kept "fresh and fine" during the year, by placing the clusters, after removing all the imperfect, immature, specked, or decaying berries, in a box with alternate layers of green peach leaves. The box is to be covered and set in a dry, cool room, free from frost.

In Germany, plums, prunes, and gages are preserved in a fresh state, in the same manner, only substituting pear leaves for those of the peach.

Rats are said to have such an antipathy to the odor of the herb houndstongue (*Cynoglos-*

sum officinale), that they will forsake a building within twenty-four hours after the leaves and stems of this plant have been strewed therein. It should be gathered when in flower, and the more freshly it is used, the more certain are its effects alleged to be.

Propagation of the Camellia.—Though the mode of multiplying the camellia by means of leaf-buds has been some time introduced, it is not yet so extensively known and employed as it deserves to be. Many amateurs and cultivators are entirely unacquainted with the process which furnishes the readiest means of propagating any particular variety with great rapidity and entire success, since every leaf-bud, even those on wood of the previous year, may be used. The proper time for employing this method is at the end of February, and in July, before the plant produces new shoots. The buds are cut and shaped very much as they are in ordinary budding, only retaining a somewhat larger portion of wood. The best soil is a good sandy loam, somewhat retentive of moisture, and it is to be pressed moderately close into a pot or box. The leaf-buds, prepared as stated, are then placed on the soil with the wood or cut side flat to the ground, gently pressed in, and secured by neat small wooden hooks. A glass plate is then laid on the pot or box, which is to be set in a hotbed newly prepared; and it should be remembered that camellia cuttings can scarcely ever be kept too warm, if care be taken to supply the requisite amount of moisture, and to keep them shaded from the direct rays of the sun. The hotbed in which the pot or box is placed, should be renovated every three or four weeks, as a steadily continued and equable heat greatly aids the formation of roots. The cuttings made in July will root in the course of five or six weeks, but should be allowed to remain in the hotbed till the middle of October, and they may then be kept in the same pot or box in a cold frame during the winter, to be transplanted in the spring. Those made in February are usually of more rapid growth, and if transplanted in May, in a loamy soil, will attain a height of ten or twelve inches in the course of the ensuing summer.

I have repeatedly employed this mode of propagating camellias, with great success, and can confidently recommend it to cultivators in general. E. M.

A decoction of common elder leaves (*Sambucus niger*) has been successfully used, in Germany, to preserve rose-bushes, and other flowering plants from mildew, aphides, &c.

It has been ascertained by numerous experiments, that certain plants are much less sensitive to the influence of chloroform at night than they are in daytime; and it has hence been suggested that delicate and tender plants might, perhaps, be most successfully transplanted at night.

Fruit jellies may be preserved from mouldiness, by covering the surface one-fourth of an inch deep with finely pulverized loaf sugar. Thus protected, they will keep in good condition for years.

Temple of Somnauth.—As the gates of Solomon's temple, at Jerusalem, and those of St. Peter's at Rome, are said to have been made of the cedar of Lebanon, so it has been ascertained, says Sir W. J. Hooker, that the gates of the temple of Somnauth are constructed of the Indian cedar, or Deodar.

Claude Lorraine's Landscapes.—The stone pine, *Pinus pinea*, is the pine of Claude Lorraine's landscapes, so often painted, and with such picturesque effects.

The Seed Season. *Dreer's Flower Seeds.*—We received, *by mail*, a few days since, a considerable package of the flower seeds advertised in the supplementary sheet, in the best order, proving that the post is a suitable medium for this kind of distribution. Mr. D. informs us, that he commenced this mode ten years since, and adds: "I find the *Horticulturist* one of the very best mediums of advertising, and have been well repaid for every dollar expended therein." This is the universal experience of all from whom the publisher hears.

LANDRETH'S SEEDS.—In a former year the *Horticulturist* gave a somewhat extended description of Landreth's farm, devoted to raising garden seeds, where are now under cultivation for this purpose alone, three hundred and seventy-five acres. His excellent Almanac, with directions how and when to plant, laid upon our table, reminds us to mention that Philadelphia supplies a larger amount of reliable garden seeds, probably, than the whole of the rest of the Union. His and other advertisements, in our supplementary sheet, tell the rest of the practical story. Buist, Morris, and Dreer, also deal largely in seeds, and may be relied on to execute orders with punctuality and correctness. The season for seeds is, of all others, the most agreeable to us—because it is attended by *Hope*.

CUCUMBERS.—We have to acknowledge the receipt, from William Bright, gr. to J. S. Lovering, Esq., two enormous cucumbers, fit almost for a club for Hercules, and such as are handed round *uncut* at dinner-parties in England. They are of remarkably good color and consistence, and deserved the premium received at the Horticultural Society, where they were exhibited the evening previous; they are highly creditable to the grower.

(C., of Brooklyn.) Quite too late for this number.

A VERBENA GARDEN.—The beautiful verbena has become of so much importance as to enlist the entire care of an extensive gardener. Dexter Snow, of Chicopee, Mass., devotes himself exclusively to the cultivation of this beautiful bedding plant, and has sent us a catalogue embracing over 200 varieties; these he will forward by mail to applicants in the Eastern or Middle States, or by railroad, where a quantity is required, to these or more distant places. For the catalogue inclose a stamp.

Mr. Snow says many persons fail in the cultivation of the verbena. The requisites are that the plants be young, strong, and healthy. They *must* have a full exposure to the sun, from *sunrise till sunset, for they will not thrive in the shade.* The soil should be light and deep loam, leaf mould from the woods (or well rotted chip dirt), and fine white or silver sand. An occasional watering with liquid manure, made by dissolving one lb. of guano in ten gallons of water (letting it stand twenty-four hours before using), once a week, will be found beneficial. The soil should be kept loose about them, and well worked.

Mr. Snow's is the only catalogue in the world devoted exclusively to verbenas, and is a curiosity. This collection must be well worthy of a visit. Most verbenas have a tendency to grow upright instead of the true form, a dwarf, with close spreading habit, broad segment of petal, well defined eye, and good foliage; they should have good stamina, so as not to be burned out in midsummer. The scented varieties should not be forgotten in making selections.

A. BRYANT'S Catalogue of Fruit and Ornamental Trees, Shrubs, and Plants, for sale at the Persimmon Grove Nursery, Princeton, Bureau County, Illinois, indicates the possession of one hundred thousand fruit trees.

BABCOCK & VAN VECHTEN, of Albany, forward us their descriptive catalogue of draining tiles.

GRAPE-VINES, &c.—We have inspected the large collection of grape-vines advertised by David Ferguson, at the Falls of Schuylkill, Philadelphia, and can, therefore, vouch for their excellence; to persons planting graperies, &c., they will be a treasure. He also advertises a number of new and valuable strawberries, evergreens, and shrubbery.

AGRICULTURAL DIVISION OF THE PATENT OFFICE. REPORT FROM PHILADELPHIA.—Mr. R. Buist, a seed grower, who resides in Philadelphia, received some seed from the Patent Office, which, he says, grew well. Of some Japanese seed he says: "In beans there are two new varieties, one of brownish yellow cluster bean, which is very prolific, and which promises to be an acquisition; the other is a large variety of running bean, which, though new, does not bear well, and is not of a good quality for eating. The most decided acquisition is a blood red cabbage lettuce, of excellent quality, which stands the heat of summer well, and gives us heads when no other variety will head. This will be a leading variety amongst that class of vegetables for a warm climate."

ROSE-COLORED HALESIA.—Some years ago, Mr. Leroy, of Angers, gave notice that he had a Silver-bell tree, *Halesia tetraptera*, with rose-coloured flowers, which he had propagated very largely. Have any of our readers seen it?

PAVIA CALIFORNICA.—Have any of our correspondents specimens of the Californian horse-chestnut (*Pavia Californica*), or of the Californian oak (*Quercus Californicus*)?

COCHINEAL.—The annual export of this article from Mexico alone is equal to two millions and a half of dollars. As this little coccus feeds upon a plant, *cactus coccinellifer*, it affords an additional item of the value of vegetable productions. The insect has the power of extracting the juices and converting them, by a chemical process, into the richest scarlet dye; but it is not so generally known that the fruits of the Nopals secrete the same color, and excellent cochineal has of late been obtained from the fruit, as well as from the insect, from the East Indies.

PATENT OFFICE SEEDS.—We are indebted to Mr. Charles Mason for a package of seeds from the Patent Office.

GEO. C. THORBURN, of Newark, N. J., sends us his large catalogue of the best new Dahlias, Fuchsias, Verbenas, Petunias, Antirrhinums, Scarlet Geraniums, Chrysanthemums, &c. There is a world of beauty concealed in those three enormous pages; those who will read his advertisement will not fail to be struck by his collection. An article on Fuchsias, in this number, will make many desire to possess the new varieties.

THORBURN'S Descriptive Catalogues, for 1856, are comprehensive; in flower-seeds it would seem that every taste may be suited.

NICHOLSON & SON, at East Rockport, Ohio, issue a good Catalogue from their Lake Erie Nursery, principally of dahlias, fuchsias, roses, and bedding-out plants.

CHORLTON'S GRAPE GROWER'S GUIDE.—Mr. Saxton, of New York, is enriching the literature and practice of gardening and fruit growing, with a collection of hand-books, in many of which he is very happy in his authors. Among the best is "The American Grape Grower's Guide, intended especially for the American Climate." The whole story is here told accurately, no less than scientifically. There seems to be a great deal to learn, but when the subject is once understood, grape growing is a more simple business than would at first appear, and in Mr. Chorlton's work the information may be obtained. It is most particularly devoted to the grape-house, though the vineyard is also treated of. We wish we had space in this number for extracts.

PARDEE ON THE STRAWBERRY.—From the same publishers we have "A Complete Manual of the Strawberry, by R. G. Pardee, the third revised edition," in which all that can be said on the subject is embodied. The work embraces notices of the raspberry, blackberry, currant, gooseberry, and grape.

AUSTRALIAN SEEDS.—Mr. Fowler, who was employed by the Australian and Van Dieman's Land Government to collect seeds, is now in this country, and advertises, in our columns, some rare seeds, such as Acacias, Kennedias, Pultænias, Indigoferas, &c. &c., at a moderate price, affording an opportunity which rarely occurs for amateurs and others to procure rarities.

HENRY LITTLE & Co., of Bangor Maine, continue to furnish seeding evergreens at very low prices.—See *Advertising Columns*.

EDITOR HORTICULTURIST.—In "Jeffreys'" pleasant critique on the *Horticulturist* for January, there occurs the following remarks on the design forming its frontispiece; "I don't fancy the round window perked up into the eaves of the tower front," as "the room connecting with it was not wanted." Agreeing with "Jeffreys," that the effect would be improved by the omission of this window, the fact however is, that the room connected with it *was* wanted, and it was precisely with the object of *enlarging* this room, that beauty was here made to bow to utility, in the use of a *projecting* dormer, instead of the *sunk* ones employed elsewhere in the building. I do not, still, think that the effect is, by this, materially injured.

R. MORRIS SMITH.

IN a business letter from Massachusetts, an agent says that one of his subscribers has declined, because the *Horticulturist* was removed so far *south!* If he had been here in January, when the thermometer was many degrees below zero, he would scarcely have thought us in a southern latitude. Other agents, there and elsewhere, have largely increased their subscriptions. From Cincinnati we have the following:—

"I am glad to learn that your prospects are very satisfactory, that your subscription list is largely on the increase. I am sure it deserves to be so. Philadelphia is eminently suited as the location of the leading horticultural journal of the land. The long and extensive experience of a very large class of intelligent practical and amateur horticulturists, with ample means at command for experimenting, and testing unsettled points, have given her an advantage over any other city of the Union. Of course these elements are essential aids to sustain and support the editor in his laborious task. With my best wishes for your success, Very respectfully,

A. H. ERNST.

ANSWERS TO CORRESPONDENTS.—The *Horticulturist* is "put to press" earlier in the month than formerly; partly owing to an increased edition, but, mainly, that it may be issued with great punctuality; a point that is found to be very acceptable to its readers; consequently, answers to correspondents received after the middle of the month, and sometimes even earlier, may be crowded *out* by matter already in the hands of the printer. It is the wish and intention of the publisher to have the work in the hands of every agent, and at every post-office, by the first of the month.

(C. M. M.) If you will watch an elm-tree making its growth the present year, you will notice that, if the season is moist and cool, the shoots will continue to lengthen till midsummer; but if, on the contrary, the season is a dry one, all growth will be over by the middle of June; simply because the moment the moisture in the soil fails, and the roots feel the effects of the sun, the terminal buds form at the end of each shoot, and then all growth for the season is over. We give you this as an illustration of the necessity of deepening your soil for your trees, so that the roots can go on growing in its cool, moist depths; and you will necessarily have tops also, with more growth in three years than otherwise in ten.

(M. X., Massachusetts.) The parsnip should not be grown in very rich soil, except the ground be dry and calcareous; its nutritive properties consist of ninety-nine parts in a thousand, of which nine parts are mucilage, the remaining portion being saccharine matter. In rich, damp soils, it acquires a rank taste, and is less sweet and agreeable than when grown on moderately poor soil.

(H. COLLINS, Auburn, N. Y.) The osage orange will succeed in the moderate shade you name, provided the soil is in good order; partial shade does not affect it much, but it is more hardy in the sun. See "an Experiment with the Osage Orange" in a late number; it is one of the most useful articles on the subject extant. If you can accomplish it, the hedge you want is, by all means, one of holly; if you succeed, it will be more to your lasting fame than a costly marble column.

EDITOR OF THE "HORTICULTURIST": You will oblige me, and perhaps many others of the readers of your invaluable and interesting journal, by stating, 1. The cause of the dropping of the fruit of orange-trees when quite small. 2. The best remedy against it.

Most respectfully yours, C. W. GRAU.

In order to answer these questions definitely, we would require to know the treatment the plants receive. Too much, or too little water at the roots, would cause the fruit to drop. The former is more frequently the cause. Insufficient drainage of the tubs or pots, improper soil, and unskilful watering, will produce disease, and, where fruit existed, it of course would speedily drop under these conditions.

You had better turn the plants out of their tubs, clear away most of the soil from their roots, put three inches of drainage in the tub, and repot in healthy, fresh soil (that procured from decayed sods is best.) Set them out of doors as soon as the weather will permit, where they will receive only four or five hours of morning sun; let the soil be kept simply moist; let your waterings be thorough, but only when necessary; so long as the soil appears damp, that is sufficient. In winter keep them dry; if placed in a cool, dark cellar, where there is no furnace, they will need no water from the 1st of December to the end of February, and, if kept in a greenhouse with other plants, they should merely receive sufficient water to prevent shrivelling of the bark.

(B., Massachusetts.) When your cedar of Lebanon cones arrive, instead of endeavoring to extract the seeds, try the experiment of planting the whole cone entire. Mr. Leroy, of Angers, finds they thus have just the necessary state of moisture; they germinate between the scales of the cone, of which latter, many fall to pieces of themselves. It is then easy to take them up and transplant them in the open air, or in pots, and place in a cool, north border. In this mode, which is the nearest approach to nature, nearly every fertile seed germinates. There is less difficulty in germinating these seeds than we formerly believed.

(W. W.) The Paulonnia imperialis has become an established favorite, both for its curious and fragrant flowers, and its seed-vessel on the tree all winter, and for its rapid growth. Plant one or two by all means. We have seen a shoot of one year's growth, 17 feet in length.

Dr. ELEMAN'S NOTES, next month.

NOTA BENE.—We must say, once for all, that the editor of the *Horticulturist* can enter into no controversies regarding advertisements inserted in the supplementary sheet attached to this work. If an advertiser there gives occasion of offence to other houses, by offering more goods than he possesses, or attempts to discredit others' wares, the same columns for reply are open to all, provided said reply is not offensive. We do not pretend to exercise any control over those pages; unless attention is called to a particular notice, by addressing the editor personally, the advertisement rarely meets his eye before publication.

A notice, last month, respecting the Dioscorea batatus, *is* deemed offensive, and the publisher has therefore declined its continuance.

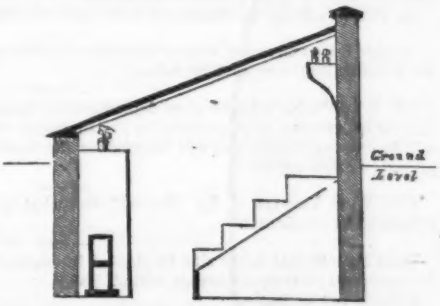
Letters and exchanges, intended for the editor, should be addressed to "Germantown Post-Office, Philadelphia, Pennsylvania."

MOOREFIELD, Ky., *Jan.* 4, 1855.

DEAR SIR: Will you, or some one of your correspondents, give me a plan for a "cold pit?" One best adapted for preserving and flowering plants in winter. Please mention the most suitable material for construction. I wish one of large size. Don't forget to mention the most convenient mode of protection by shutters; by so doing, you will oblige

A SUBSCRIBER.

To *flower* plants is a very different thing from merely preserving them. A structure that would answer perfectly for the latter, might be wholly unsuited for the former. A "cold pit" is simply a miniature greenhouse, without any facilities for producing artificial warmth. If our correspondent wishes to flower plants in winter, a small furnace and flue will be requisite. Indeed, under any circumstances, the means for producing heat are desirable to keep the atmosphere free of damp. As this is a kind of house which, we think, ought to be more generally used, we have prepared the accompanying plan. The arrangements are so apparent, that no detailed description is deemed necessary. The dimensions of this pit are as follows: Inside width, 8 feet, height of back wall the same, and the front 5 feet. As all the other parts are in proportion, they can easily be ascertained; of course, the length may vary to any extent. If under 20 feet, the flue should return on itself, as shown in the figure. It should be constructed either of brick or stone; a dry situation should be chosen, and the bottom covered with 6 inches of gravel, sand, or coal ashes. It may be entered by a door at one end, or by merely lifting up one of the sashes. The best covering is water-proof cloth, hung on rollers, and elevated 6 inches from the glass by a portable framework of lathes, so as to include a stratum of air between the glass and the covering. It is essential that the cover, when in use, should fit closely round the pit; as a protection from frost this system will be found more efficient and economical than any method of wooden shutters. Fire heat will seldom be found necessary, and all kinds of greenhouse plants may be kept in the highest state of health, and flower better than in a close, steaming greenhouse. The mere exclusion of frost only is required, and the day temperature may be allowed as high as 70° or 75° during sunny weather. Water must be carefully administered; the dryer everything can be kept, compatible with healthy growth, the better will it be for the plants. A southeast aspect is best.



(A. W. S.) You have shown great wisdom in saving all the leaves of your trees. They will probably not have decayed by this time, if stacked last fall, but you can have them for use very soon, by the following treatment. Slake fresh lime with brine or with water saturated with salt, till it falls to a powder of muriate of lime. Turn your leaves with a hay-fork, sprinkling this powder over every layer at the rate of four bushels to a cord of leaves. Turn the heap occasionally, and you will soon have one of the best fertilizers; the lime decomposes the leaves, and if the mass is applied to fruit and other trees, and shrubs, you need nothing better; as a top dressing to lawns, it is highly valuable. Mixed with

peat, or dry muck, it might be increased in bulk as well as value. We save, annually, many cords of leaves ready for nourishing trees, &c. As they must be raked up, the cost is nothing.

(B. W., Illinois.) You are on the right track exactly, and can "go to sleep and make money." In planting your 5,000 young locust-trees, cut the plants down at the ground; they will be easier set, more likely to live, and, at the end of two years, will be larger than if the entire tree had been planted. You may have a crop of pumpkins, &c., among them without injury. Will you sell your locust plantation at double its cost? If so, drop a line.

J. Jay Smith, Esq.—Sir: On Kew Gardens, in No. 1, please to look in Loudon's *Encyclopædia of Plants*, under list of authorities for generic and specific names, you will find that Sir W. J. Hooker is an Englishman (1). Please to inform me if the accentuations in Paxton's *Botanical Dictionary* are all correct. Scutellaria is accented Scutellarïa, page 62, supplement, in Loudon's *Encyclopædia of Plants*; and in Gray's *North American Botany*, it is Scutellà'ria. In Paxton, Primula is Prīmū'lă; in Paxton's *Supplement*, Primū'la; in Gray and Loudon, Prī'mula. Who is correct? (2). Can you inform me, in the *Horticulturist*, if there is any book published in which the botanical names of plants are divided into syllables, suitable for gardeners? (3). P. Q. R.

1. Sir W. J. Hooker would probably be styled an "English botanist," whether born in England, Scotland, or Ireland, as the works for which he is chiefly famed are English works. If we are correctly posted, Sir W. J. H. is a Scotchman by birth, who commenced life in Glasgow as a malster or brewer, and who, by his high botanical attainments, subsequently became Professor of Botany in the Glasgow University, and, in 1840, Director of the Kew Gardens, London.

2. Paxton is not considered high authority in botanical matters. The botanical part of his *Magazine of Botany* was edited by a clerical friend, now, we believe, his son-in-law. In the instances, Gray and Loudon are correct.

3. Paxton's *Botanical Dictionary* is the only one used by gardeners.

A New Beginner in the Nursery Business should not send us any communication to which he is not willing to append his name.

(H. E.) We have heard of no demonstration to employ the money ($5,000) left by the late Elliott Cresson, to plant trees in Philadelphia. We are quite curious to know how it will be employed, and who will administer the fund. It was a noble bequest; will it be *properly* carried out?

(Dr. W. S. Kimball, N. J.) You will find what you want in Buchanan's *Grape Culture*, published in Cincinnati.

Dear Sir: Should arbor vitæ be planted in double or single rows for hedges and screens? An answer in your next number, will oblige A Subscriber.

A single row is ample.

(H. Davis, Waterville.) By trimming the tops of white cedar regularly twice a year, it will retain its lower branches for many years, but must ultimately lose them in obedience to the law of its nature; for this reason, it is not now much employed for hedges.

Horticultural Societies.

Pennsylvania Horticultural Society.—The stated meeting of this Society was held on Tuesday evening, February 19, 1856, at Concert Hall, Gen. Patterson, President, in the chair. Premiums were awarded as follows, by the Committee on Plants and Flowers:—

Camellias, Twelve Cut Flowers—for the best to David Ferguson; for the second best to Jerome Graff, gr. to C. Cope. *Collection of twelve Plants*—for the best to Thos. Robertson, gr. to B. A. Fahnestock. *A Special Premium* of one dollar to Peter Raabe, for a collection of Hyacinths, Tulips, and Crocuses, in pots. *Specimen Plant*—for the best to Mark Hill, gr. to M. W. Baldwin, for *Acacia pubescens*. *Table Design*—for the best to Barry Higgins, gr. to D. R. King. *Basket of cut Flowers*—for the best to Mark Hill; for the second best to J. J. Habermehl, gr. to John Lambert. *Bouquets*—for the best pair to the same.

By the Committee on Fruit. *Pears*—twelve specimens—for the best to Isaac B. Baxter, Broom Park, B. Rance, and St. Germains.

By the Committee on Vegetables. *Special Premiums* of one dollar each to Mark Hill, for a brace of Cucumbers and a bunch of Asparagus, and to Barry Higgins for a dish of Mushrooms.

The Committee of Finance reported that the Treasurer's account was correct.

The appointment of the Standing Committee for the year 1856, was announced.

A collection of dried specimens of indigenous plants, received through the hands of J. Jay Smith, Esq., from Mrs. Isaac Clement, of Saratoga County, New York, was presented to the Society, and it was, on motion, ordered that the thanks of the Society be tendered to the donor. The following Preamble and Resolutions were adopted (which we have inserted, with a comment, elsewhere.—Ed.).

Three gentlemen were elected members.

Objects exhibited not before mentioned.—*Plants* from B. A. Fahnestock's house—twelve plants: *Acacia floribunda, A. graveolens, Azalea Bealii, A. triumphans, Burchellia capensis, Brachysema acuminata, Billbugia sp., Centradenia floribunda, Chorozema varium, Epacris canescens, E. alba odorata, and Kennedya monophylla.* Specimen—*Mahernia odorata*, also eight *Primula sinensis.*

From C. Cope's houses—*cut Camellias, Henry Fourth, candidissima, Prattii, Jeffersonii, Imbricata, Duchess of Orleans, Sarah Frost, Tentonia, Minuata, Princesse Borisschii, Duke of Brabant*, and *Fimbriata.*

From John Lambert's, twelve cut *Camellias*, and by Peter Mackenzie, twelve cut *Camellias.*

Chester County Horticultural Society.—The stated meeting for March was held in the Hall, on the 8th inst., at the usual hour, Vice-President, J. H. Bull, presiding.

The display of Apples, on the present occasion, has probably never been surpassed at any previous meeting of the Society at this season of the year.

The first premium for display of Apples, was awarded to Joshua Embree, who exhibited twenty-nine varieties. The second premium for ditto, was awarded to Lewis P. Hoopes, who deposited eight varieties.

Amos H. Darlington also exhibited a beautiful display.

A large collection of greenhouse plants was exhibited, from the nursery of Josiah Hoopes. Also, a pair of pretty hand-bouquets, by Mrs. S. H. Fergus.

An election for officers, to serve the ensuing year, was held, and the following were duly elected, viz: *President*—Jonathan C. Baldwin. *Vice-Presidents*—Pierce Hoopes and J. H. Bull, Esq. *Rec. Sec'y*—Josiah Hoopes. *Cor. Sec'y*—Joseph P. Wilson, Esq. *Treasurer*—John Marshall.

Josiah Hoopes, *Sec'y.*

Calendar of Operations.

APRIL.

BY WILLIAM SAUNDERS.

Vegetable Garden.—Order, regularity, and neatness, go hand in hand with good cultivation; and nowhere is their appearance of more moment than in this department, whether in respect to the enjoyment to be derived in contemplating the various developments of the crops, or the beneficial influence it confers on their growth. The walks and paths should be kept clean, and all blanks in their edgings repaired. It will not pay one to grow weeds.

Tomatoes, egg-plants, &c., should now be removed from the seed-beds, and carefully transplanted either into a frame, or some sheltered spot, where they can be readily protected from cold and dry winds. Choose a rich vegetable soil, and plant a couple of inches asunder. This encourages them to form numerous roots, and they will succeed better on final planting in the open ground. Prepare for planting Lima beans by inserting poles, digging the soil deep, and mixing a portion of well-rooted manure, or leaf mould, in the hills. There is nothing gained by planting this crop too early. The soil must be warm, and in condition to accelerate vegetation before planting, to insure a speedy and vigorous growth. I have always seen the earliest and best crops from those that have not been planted until these conditions could be secured.

Peas should be sown every two or three weeks, to keep up a regular supply. Let the ground be deeply worked for future sowings, otherwise they may not be profitable should dry weather prevail.

Asparagus should now be uncovered, and, if growing in rows, the soil should be forked up between them. In cutting it for use, it is well to bear in mind, that it is superfluous to cut below the surface, the white portion not being eatable. Seed may yet be sown for young plantations. See to the clearing of this crop, and give an early check to the growth of weeds.

Chamomile, sage, wormwood, tansy, and lavender, may have their roots divided, or increased by slips where a stock is required.

HARDY FRUIT.—Pears grafted on quince require deep, rich soil, to derive full benefit from this method of culture. Many failures have occurred, and much disappointment has been occasioned, by those who have planted these without knowing what they were about. Of course, all such failures are attributed to the trees, and the system of grafting them; few people care about taking blame to themselves, if they can by any means shift the responsibility.

Pear culture on this system is not for those who plant a tree as they do a gate-post, and who look upon the after-treatment of both in the same light—that is, leave them till they rot, and then put in a fresh one. In planting, surround the roots with a peck or so of leaf or wood mould; this starts them vigorously. Cover the whole of the quince, and about an inch of the pear-stem, with soil. The quince roots freely from any part of its surface; therefore, deep planting in this case is not injurious, and it prevents the depredations of the borer. If the roots appear stumpy, stunted, and destitute of fibres, cut several upward slits on various parts of their surfaces, to encourage root formation.

The amount of pruning that trees require at planting, depends upon the degree of mutilation and maltreatment the roots have been subjected to. The older the tree, the greater the mutilation the roots are likely to suffer, and, consequently, the more branch pruning will be necessary. For this reason, young trees are better for general planting than older ones; two years from the bud is a favorite age for the removal of nursery trees. At this age, too, they are just in condition for training to any desired form. Young trees that have been neglected during last summer, with reference to pruning, and have shoots three or more feet in length, should have those luxuriant shoots bent down and fixed in that position. Close pruning such shoots only increases their vigor.

Care in disbudding where branches are not wanted, and pinching early the extreme points of those shoots that seem to grow too strong, will early attract the attention of those who wish to see a perfect and well furnished tree.

GRAPERY.—As the young shoots progress, tie the canes up to the rafters, but keep their points pendant until the lower buds are well into growth. Attend early to disbudding—a very necessary operation on close pruned vines; of course leave the strongest shoot. Syringe over the plants during the early portion of the day, and endeavor to have the house dry towards evening, so long as frosty nights may be expected. If appearances indicate a sharp frost, and there is no other means of repelling it, filling the house with smoke will be found a good preventive expedient. Damp hay, or any similar matter, will answer this purpose; tobacco stems may be used, if there are, as frequently happens, nectarine or peach-trees trained on the back wall, as both the green and black aphis are very liable to attack them when the leaves are developing. Admit air carefully, exclude dry, blustering winds, and keep the bottom ventilators closed to avoid currents.

GREENHOUSE.—*Watering.*—The application, or, rather, the misapplication of water, kills more pot plants than anything else. It is also a subject that will not admit of definite rules, so much depends upon individual circumstances. When a plant is wet, it of course requires no water, yet many water all their plants every day. When a plant is dry, sufficient water should be given to reach every root, and wet all the soil; yet many are content by dribbling a little on the surface. Strong growing plants, and those that have filled their pots with roots, will require more water than those under the opposite extremes. Plants maturing their growth, or coming towards a state of rest, should have a gradually diminished supply, not, however, by curtailing the quantity at each application, but by lengthening the period between them. Merely wetting the surface only deceives the eye, as the lower roots get none. Again, delicate rooting plants, as azaleas, heaths, epacris, leschenaultias, &c., especially if recently repotted, will frequently appear dry on the surface, although not in need of water. To ascertain accurately, give the side of the pot a sharp rap; if it produces a clear, ringing sound, it is a sure sign that there is not much moisture within.

Calceolarias and cinnerarias are difficult to keep over summer. The best method is to plant them deep, in a rich, open soil, clear away a few of the lower leaves, and draw the soil well up about the stems; unless they emit a fresh supply of roots, and get hold of the soil before summer, they will do but poorly.

Pelargoniums will soon be in perfection. Keep them regularly supplied with water, and cut off the faded blooms. They will keep in flower for some weeks, if regularly attended to in these particulars.

Fuchsias.—Attend to repotting in time, that a speedy growth may receive no check, but do not give them very large pots, unless your object is a large plant and no flowers. They only bloom well when growth is completely checked by the pots being filled with roots; an eight inch pot will grow a specimen large enough for ordinary decorative purposes.

Achemenes require rough, turfy soil, and one-fourth of the pot filled with drainage. Strong growing sorts like pedunculata, grandiflora, hirsuta, &c., may be placed singly, or two or three in a pot; by constantly pinching out the young points, they may be grown very large, even from single roots, but they increase so rapidly by the roots, that plants are always abundant. Longiflora, coccinea, rosea patens, &c., may be planted thickly; they will thus soon form a large mass, and a succession of flowering plants may be had by keeping a few well pinched down. Syringe them frequently, and do not keep the soil too wet. Gesneras and gloxinias require similar treatment. The tuberous roots of the latter are apt to decay if the soil is kept wet before the fibry roots extend.

The house will now be much crowded. Plants intended for the flower garden may be set out of doors; so may, also, a few of the earliest flowered camellias, acacias, azaleas, together with pittosporums, myrtles, oranges, &c., that are intended for out-door decorations. Be guided, however, by the condition of their growth. They will certainly be checked, unless the young shoots have completed their growth. Choose a spot where they will be shaded from morning sun; a few degrees of frost will then do no harm.

During the month of February last, I was shown into a small conservatory, containing more bloom than I ever saw in similar space. The vigor and health of the plants attracted notice. I was informed, that a few days previous to my visit, through an accident, the thermometer got down to 22°, thus subjecting the plants to 10° of frost; shading was immediately resorted to, and the temperature allowed to rise gradually. Not a leaf or flower was harmed. Cinnerarias, geraniums, Kennedias, epacris, euphorbias, gesneras, and even the cypripediums, insigne, and venusta, were all unhurt. This much for simply shading after frost.

Chinese primrose, for seeding, may now be allowed to flower; leave only one flower-stem on a plant; set them near the glass, where they will get air when the house is opened.

Climbing plants and rustic baskets, hanging about a greenhouse, create a pleasing variety. Baskets for this purpose are readily made with small branches of trees, or pieces of oak and hickory bark. Any plant that forms slender branches, or partakes of a spreading character, is suitable. Climbing plants are not at all adapted for this purpose. Nemophilas, lobelia erinus, torenias, eschynanths, hoya bella, mahernias, mimulas, petunias, and lophospernums, if well pinched back when growing, lantana sellowii, and lycopodium denticulatum, are well suited for this method of culture.

Orchids.—There are but few who have special structures for the growth of this family. They are proverbially of easy culture, and many of them grow well under ordinary greenhouse treatment. Like other plants, they have a season of growth, and one of rest. While growing, they require a warm, humid atmosphere, and a dry and comparatively cool temperature when growth is completed. Were these simple facts kept in view, we should see them flower more profusely than when kept in continual growth, by maintaining a suffocating atmosphere, saturated with moisture as they are generally treated. We shall never see these curious plants come into general cultivation until the present mode of management is completely changed.

Flower Garden.—Plants intended for the borders should be "hardened off"—that is, accustomed to the weather for two weeks before planting out. The hardier kinds, as verbenas, should be planted early. If left until the end of May, as is usually the case, the warm, dry weather sets them to flower instead of growth; and, unless planted very thick at first, the ground will not be covered for months. A few degrees of frost will not harm them, and they will take to growth before overtaken by sultry weather.

Asters, balsams, and other annual flowering plants, may be sown in a frame, or a sheltered corner, in shallow drills, to be transplanted when of sufficient size.

Hollyhocks are very effective in masses, or singly, in shrubbery borders. Procure seed of good varieties, and sow it at once; transplant in nursery rows when about a couple of inches high. The following season, they may be placed where wanted to flower.

Dahlia roots that have not commenced to grow, may be planted out towards the end of the month. They are increased by division of the roots, and cuttings root quickly if not kept too close and damp.

Violets should be divided and planted in rows, in rich soil. The tree violet is a useful kind; cuttings put in now, will form fine flowering plants for next winter.

Lawns.—When the soil is retentive and wet, the grasses are apt to be thrown out by the winter frost. A top dressing of surface soil, raked and rolled to an even surface, will impart fresh vigor to the roots. A great feature in keeping lawns is, to have them early and regularly cut. Especially should they be kept closely mown in the early part of the season, that the individual plants may spread, and form a thick surface, able to resist a dry season. There is no reason why we should not have good lawns, if properly laid down at first, and attended to afterwards.

Pleasure Grounds.—In the arrangement of the grounds about country houses, a frequent cause of dissatisfaction is the want of connection between the building and surrounding scenery. A sloping lawn, running directly to the base of the house without any intervening object, always appears defective. In some cases, where the grounds are contracted, even a walk running parallel with, and surrounding at least the principal fronts of the house, will be found sufficient. But where a terrace can be introduced, although only of a few feet in width, it conveys a pleasing air of propriety to the dwelling; and, carrying art beyond the mere form of the house, its vertical and horizontal lines are blended by degrees with the accidental undulations of surface. It is not to be inferred that we recommend huge sod-banks to be raised on a level with the first floor, as may frequently be seen. Many fine buildings have their just architectural proportions completely marred by the quantity of earth piled round their base, looking as if half submerged. It is a wonder that architects do not pay more attention to this subject, and not only suit the style of architecture to the locality, but also provide for the necessary improvements being conducted without abridging its beauty of composition. Houses finished with heavy cornices, are much improved when surrounded with a broad platform, or esplanade, supported by a low wall, with balustrade on top; a proper position for the display of vases and other artificial objects. An extended terrace of this description on the private front, may embrace a small flower garden in the strictly geometrical style, which will be in good keeping with statuary, sun-dials, fountains, and other works of art.

The lateness of the season admonishes us to proceed, with all possible dispatch, with planting. Deciduous trees and shrubs should be attended to first; evergreens may be transplanted with perfect safety even after growth has commenced. The details of planting have been so often ably reverted to in these pages, that it is unnecessary to enlarge upon the subject here. The disposition of the trees with regard to individual or combined beauty, will also exercise the mind of the judicious planter. Trees of distinct character, as the weeping willow and Lombardy poplar, are said to be "dangerous in the hands of beginners;" yet, what a beautiful group they form when combined. Plantations of round-headed trees alone, appear heavy and tiresome; relieve them by a few larches, or deciduous cypress, and how changed the effect! the contrasts give animation to the scene. Again, what variety might be introduced by contrasting trees with reference to their changing colors in autumn, or even in their various shades of green during budding spring? No one who appreciates the beauty and adaptability of trees, will be deterred from planting this because it is common, or that, because it is ugly. Beauty and deformity are only relative appellations.

Evergreen and deciduous trees should not be indiscriminately mixed. For summer shade, the sugar, silver, and scarlet maples, ash, elm, &c., should be planted near the house; evergreens are valuable for shelter, but have a disagreeable effect in winter when placed *too near* the south side of buildings. A house nestling on the sunny side of an evergreen plantation, suggests comfort and cheerfulness; place too many evergreens in front, and the effect is cold and gloomy. Free growing kinds, as Norway spruce, white pine, and Scotch fir, are well adapted for planting where rapid growth and shelter are desired. Some of the finest spruce and rare pines may be planted singly. Placing them on mounds slightly elevated above the adjoining surface, increases and exhibits their beauty to the greatest advantage. The evergreen and deciduous plantings may be made to blend gradually into each other, by the skilful introduction of larches and deciduous cypress. These are deciduous, but partake of the conical outline of the majority of evergreens.

It may not be a useless repetition to remark, that every care should be given to guarding against the drying of the roots during the process of removal and planting; and that pruning of the branches should follow pruning of the roots—in other words, the branches require shortening back when there has been much mutilation of roots. Filling up the hole to allow for sinkage of the soil, securing the plants by stakes, and mulching over the surface, are points which will not be overlooked.

FUSCHIAS.

1. *Emperor Napoleon*
2. *Venus de Medici*